

# **Rico Surface and Groundwater Sampling Supplemental Surface and Groundwater Quality Monitoring**

## **Rico, Colorado Data Summary Report**

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***August 2013***

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**Rico, Colorado**  
**Surface and Groundwater Sampling Report**  
**August 2013 Sampling Event**

## **1.0 Introduction**

In accordance with the Rico Sampling and Analysis Plan for Supplemental Surface and Groundwater Quality Monitoring at Rico, CO prepared by AECOM, dated November 2010, the surface and groundwater sampling event was completed on August 7<sup>th</sup> – 29<sup>th</sup> 2013. Sampling was completed by Anderson Engineering Co. Inc., by technicians who are familiar with the Rico sites and the BP Control of Work Management System. Surface and groundwater samples were collected from prescribed locations within the St. Louis settling pond system and at the system discharge (DR-6) to the Dolores River (collectively referred to as the St. Louis pond system), and previously sampled locations along the Dolores River above, at and below the St. Louis pond system. Figures 1, 2, and 3 in Appendix A illustrate the locations of the various points sampled this month. Sample results have been summarized and laboratory analytical results are attached with quality control documentation.

## **2.0 Field Sampling**

### **2.1 Sampling Frequency**

The sampling period represented by this sampling event is for the month of August of 2013. Sampling will be performed on a monthly basis through at least the end of 2013.

### **2.2 Water Quality and Flow Measurement Sampling Locations**

Surface water and groundwater samples were collected from the locations described on Table 1 and shown on Figures 1, 2, and 3 in Appendix A. In the fall of 2011, twelve (12) new monitoring wells were drilled in the vicinity of the recently constructed interim drying facility. Beginning November 2011, those wells were sampled and will continue to be sampled monthly along with the other sampling locations mentioned. In the fall of 2012, eight (8) new monitoring wells were drilled throughout the St. Louis Ponds site. Beginning November 2012, those wells were sampled and will continue to be sampled monthly along with the other sampling locations mentioned. Additionally, eight (8) historic groundwater wells are sampled on a monthly basis. Two angle boreholes (AT-2 and BAH-01) are sampled monthly as well.

The Dolores River was sampled above the St. Louis pond system, and below the adit outfalls downstream of the reclaimed Silver Swan Mine area. The river was also sampled at the USGS gaging station downstream of the Silver Swan site.

**TABLE 1 - Sample Location Descriptions**

<b>SITE ID</b>	<b>SITE LOCATION / DESCRIPTION</b>
<b>Surface Water Locations</b>	
DR-1	Cross-section on the Dolores River approximately 1000 feet North of Pond 18.
DR-2	Cross-section on the Dolores River approximately 150 feet North of the system outfall.
DR-3	St. Louis Tunnel discharge at adit entrance. Sampling location is at the parshall flume located approximately 50 ft west of the cinder block

	structure at the former adit entrance.
DR-4	Discharge of Pond 15. The sampling location is at the outlet of the upper discharge pipe located on the midpoint of the Pond 15 south embankment.
DR-5	Discharge of Pond 8. The sampling location is at the inlet of the discharge spillway located at the southwest corner of Pond 8.
DR-6	St. Louis settling ponds system outfall to the Dolores River (previous permit Outfall 002). Sample location is at installed 9" parshall flume.
DR-7	Dolores River below St. Louis settling ponds system outfall. Sampling/flow measurement location is located just off the entrance road to the St. Louis ponds site where the Dolores River is adjacent to the entrance road. The site is located approximately 75 feet downstream of a large bend in the river that first brings the Dolores adjacent to the entrance road.
DR-4-SW	Dolores River below Silver Swan. Sampling/flow measurement location is on the Dolores River below the Silver Swan site just downstream of a bend in the river and below a cemetery on the east bank.
DR-G	Located approximately 3.5 miles downstream of the Silver Swan site, at the USGS gauging station #09165000 immediately downstream of the bridge at this location.
<b>Groundwater Locations</b>	
GW-1	Well is located on the north end of the site, approximately 1000 feet north of the northern edge of Pond 18 and about 75 feet northeast of DR-1
GW-3	Located approximately 200 feet north of the northern edge of pond 18, and approximately 60 feet west of the main access road.
GW-4	Located on the western flood dike of Pond 18, approximately midway along the dike.
GW-5	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1.
GW-6	Located on the middle of the former Pond 17 area, or on the western edge of the south dike of the newly constructed drying cell 1.
GW-7	Located on the eastern edge of the access road directly across from the former Pond 17, or directly across from the newly constructed drying cell 2.
EB-1	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1. It is within ten feet of GW-5.
EB-2	Located on the southern portion of the former Pond 16 area, or on the western edge of the south dike of the newly constructed drying cell 3.
MW-1 Shallow MW-1 Deep	Both wells are located about 4 feet apart on the western embankment of Pond 13 at the division between Pond 11 and Pond 12.
MW-2 Shallow MW-2 Deep	Both wells are located about 4 feet apart on the western flood embankment of Pond 12, about mid-way along the pond.
MW-3 Shallow MW-3 Deep	Both wells are located about 4 feet apart on the western flood embankment of Pond 15, on the southern half of the embankment.
MW-4 Shallow MW-4 Deep	Both wells are located about 4 feet apart on the southern embankment of Pond 13, approximately 60 west of the main east access road.

MW-5 Shallow MW-5 Deep	Both wells are located about 4 feet apart on the western dike of drying cell 3 (refer to Figure 2).
MW-6 Shallow MW-6 Deep	Both wells are located about 4 feet apart on northern embankment of Pond 13, approximately 75 feet west of the main east access road
MW-101	Well is located approximately 200 feet south of the lime plant building in the large open clearing within the St. Louis Road loop.
MW-102	Well is located approximately 150 feet southeast of well GW-7 at the point that the access road splits in two directions.
MW-103	Well is located at the southwest corner of Pond 7 on the flood control dike adjacent to the Dolores River.
MW-104	Well is located approximately midway along the west flood control dike of Pond 9.
MW-202	Well is located approximately 25 feet southeast of the cinder block structure at the former adit entrance.
MW-204	Well is located approximately 200 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel.
P13-102	Well is located at approximately the southeast end of the newly constructed dike at the southwest corner of Pond 13.
P13-103	Well is located approximately midway along the newly constructed dike at the south corner of Pond 13.
CHV-101S	Well is located approximately 125 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel. Sampling by bailer.
AT-2	Angle borehole casing is located approximately 220 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel.
BAH-01	Angle borehole casing which accesses the mine tunnel from the south.

### 2.3 Sampling Station Conditions and Descriptions

The sampling requirements and stations are described in detail below, as well as the conditions at each station for this sampling period. Samples collected were collected per protocols identified in the Sampling and Analysis Plan (SAP). Flow measurements were collected per protocols identified in the SAP.

**DR-1.** Sampling location fully accessible. Grab sample collected from east bank of river and composite sample collected from stream cross section. Flow measurements were collected by flowmeter.

**DR-2.** Sampling location fully accessible. Grab sample collected from east bank of river and composite sample collected from stream cross section. Flow measurements were collected by flowmeter.

**DR-3.** Flow measurement collected monthly by an installed 9" flume and water level measurement devices at the sampling location. Manual measurement collected on 8/27/13 at 3:45 PM.

**DR-4.** Sample location fully accessible. Sample collected from upper drain pipe inlet in Pond 15. Flow in both pipes estimated by measuring depth and pipe velocity.

**DR-5.** Sampling location fully accessible. Sample collected at spillway. Flow measurements collected by flowmeter at spillway. Due to the shallow water and multiple paths, accurate flow measurements could not be determined for this sampling location and period. Flows estimated at spillway to be 60% of total flow.

**DR-6.** Flow measurement by an installed 9" flume and water level measurement devices at the sampling location. Manual measurement collected on 8-20-13 at 11:30 AM.

**DR-7.** Sampling location fully accessible. Grab sample collected from east bank of river and composite sample collected from stream cross section. Flow measurements were collected by flowmeter.

**DR-4-SW.** Sampling location fully accessible. Grab sample collected from east bank of river and composite sample collected from stream cross section. Flow measurements were collected by flowmeter.

**DR-G.** Sampling location fully accessible. Grab sample collected from east bank of river and composite sample collected from stream cross section. Flow measurements were collected by flowmeter.

**Monitoring Wells.** All monitoring wells were sampled by use of a bailer, and field measurements were taken at the time of sampling, per protocols identified in the SAP. Depth measurements were also taken at this time. For the August 2013 sampling period, MW-2 Shallow, MW-3 Shallow, and MW-202 were dry. MW-204 could not be sampled due to shifting in subgrade soils causing the pipe to break at approximately 3.5' below ground surface, not allowing a bailer to be lowered down the well. Plans are being created to address the issue to allow sampling in the future.

## **2.4 Simultaneous Operations**

During the month of August 2013, other projects were occurring simultaneously at the St. Louis Ponds site.

- Operation of the pilot scale wetland test was occurring during the sampling period. Effects on the water from this operation are little to none.
- Prior to this sampling period, the 517 injection test was completed. The test began on June 21, 2013 and ended in mid July 2013, and involved the injection of a 25% NaOH solution into the bottom of the 517. As the objective of the test was to treat water coming out of the St. Louis at DR-3, this may have an effect on samples collected within the St Louis Ponds area.

## **3.0 Sampling and Analysis Parameters and Methods**

All samples were collected as grab or composite samples. Samples were collected from well-mixed locations, which are representative of conditions within the flow stream. Groundwater samples are purged according to protocols identified in the SAP. Lab-certified plastic bottles were used to collect sample water for analyses. Clean hands, dirty hands procedures were followed throughout the sampling. For quality control purposes, one duplicate sample was collected for every 10 samples collected and two field blanks were included with the water samples being submitted to the laboratory for analysis. Composite

river samples are collected in accordance with the technical standard operating procedure found in Appendix L.

Lab-certified plastic bottles were used to collect all water samples. Sample water was first collected in clean plastic jugs and field parameters were measured at the time of sample collection. Sample water was then placed in the sampling bottles soon thereafter per protocols identified in the SAP. The following sample bottles were used for collection and analysis (all samples collected without filtration unless otherwise indicated):

- One (1) 500mL HDPE bottle, unpreserved, for alkalinity, Total Dissolved Solids (TDS), Total Suspended Solids (TSS), chloride and sulfate analysis
- One (1) 250mL HDPE bottle, unpreserved, for salinity analysis
- One (1) 250mL HDPE bottle, preserved with  $\text{HNO}_3$ , for total metals, silica, and water hardness analysis
- One (1) 250mL HDPE bottle, preserved with  $\text{HNO}_3$ , for dissolved metals analysis. This sample is filtered in the field through a  $0.45\mu\text{m}$  filter.
- One (1) 250mL HDPE bottle, preserved with  $\text{HNO}_3$ , for potentially dissolved metals analysis
- One (1) 250 mL HDPE bottle, preserved with NaOH and Zn Acetate, for sulfide analysis.
- One (1) 250 mL HDPE bottle, preserved with NaOH, for cyanide analysis
- One (1) 250 mL amber glass bottle, preserved with  $\text{H}_2\text{SO}_4$ , for Total Organic Carbon (TOC) and nitrate analysis

Field parameters were measured at the time of sample collection. Field measurement data for pH, temperature, electrical conductivity, dissolved oxygen, and Oxydation-Reduction Potential were recorded using a Hanna Instruments HI 9828 Multiparameter Meter and ExTech ExStik EC500 meter (for recording pH, electrical conductivity, and temperature of groundwater well purge water), and results were logged in the field log book. Results of field measurements for all samples collected on site can be found in Tables 3A – 3G in Appendix B. Weather parameters including temperature and precipitation were obtained and documented in the Daily Toolbox Meeting Record.

All sample bottles were labeled to identify sample number, date and time of collection, type of analysis, and appropriate preservative. In addition, sample analysis/chain of custody forms were completed and processed at the time of sample collection. Original chain of custody forms are signed, dated, and placed in the sample container prior to sealing the container for shipment.

Water samples were kept in cooled containers and sent to the analytical laboratory. Samples were submitted to Pace Analytical Laboratories in Lenexa, Kansas for analysis by analytical procedures listed on Table 2. Analysis was performed according to methods specified in 40 CFR, Part 136 or other methods approved by the EPA. Laboratory methods and reporting limits for all parameters are presented in Table 2. Laboratory results and supporting documentation including quality assurance results are contained in the Appendix C and Appendix D of this report. Results are summarized in Tables 4A – 4D in Appendix B of this report.



**TABLE 2 - Analytical Procedures Summary**

PARAMETER	DETECTION LIMIT (MDL)	REPORTING LIMIT (RL)	METHOD
<b>FIELD PARAMETERS</b>			
Dissolved Oxygen (ppm)	+/- 1.5% of reading	+/- 1.5% of reading	SM 4500-OG
Electrical Conductivity (mS/cm)	+/- 1% of reading	+/- 1% of reading	EPA 120.1
Temperature (°C)	+/- 0.15° C	+/- 0.15° C	Standard Method 2550
ORP (Oxidation Reduction Potential, mV)	+/- 1.0 mV	+/- 1.0 mV	Ag/AgCl Probe
pH (Standard pH Units)	+/- 0.02 pH	+/- 0.02 pH	EPA 150.2
<b>NON-METALS</b>			
Alkalinity (mg/L as CaCO <sub>3</sub> )	20 mg/L	20 mg/L	SM 2320B
Chloride (mg/L )	1.0 mg/L	1.0 mg/L	EPA 300.0
Cyanide (µg/L as CN)	0.0021 mg/L	0.005 mg/L	SM 4500-CN-E
Hardness (mg/L as CaCO <sub>3</sub> )	0.036 mg/L	0.071 mg/L	SM 2340B
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> ( mg/L )	0.022 mg/L	0.1 mg/L	EPA 353.2
Salinity (mg/L as dissolved solids)	6 mg/L	6 mg/L	SM 2510B (calculated)
Silica	0.027 mg/L	0.054 mg/L	EPA 200.8
Sulfate (mg/L as SO <sub>4</sub> )	0.15 mg/L	1.0 mg/L	EPA 300.0
Sulfides (mg/L)	0.018 mg/L	0.05 mg/L	4500-S-2 D
Total Dissolved Solids (mg/L as TDS)	5.0 mg/L	5.0 mg/L	SM 2540C
Total Organic Carbon (mg/L)	0.072 mg/L	0.5 mg/L	SM 5310C
Total Suspended Solids (mg/L as TSS)	5.0 mg/L	5.0 mg/L	SM 2540D
<b>TOTAL, DISSOLVED, AND POTENTIALLY DISSOLVED METALS*</b>			
Aluminum (µg/L as Al)	2.00 µg/L, 6.35 µg/L	4 µg/L, 50 µg/L	EPA 200.8, EPA 200.8
Antimony (µg/L as Sb)	0.100 µg/L, 0.03 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Arsenic (µg/L as As)	0.138 µg/L, 0.05 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Barium (µg/L as Ba)	0.150 µg/L, 0.08 µg/L	0.3 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Beryllium (µg/L as Be)	0.092 µg/L, 0.05 µg/L	0.2 µg/L, 0.5 µg/L	EPA 200.8, EPA 200.8
Cadmium (µg/L as Cd)	0.028 µg/L, 0.05 µg/L	0.08 µg/L, 0.5 µg/L	EPA 200.8, EPA 200.8
Calcium (µg/L as Ca)	10.000 µg/L, 10.35 µg/L	20 µg/L, 100 µg/L	EPA 200.8, EPA 200.7
Chromium (ug/l as Cr)	0.094 µg/L, 0.07 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Cobalt (ug/l as Co)	0.250 µg/L, 0.08 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Copper (µg/L as Cu)	0.184 µg/L, 0.12 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Iron (µg/L as Fe)	10.00 µg/L, 2.95 µg/L	50 µg/L, 50 µg/L	EPA 200.8, EPA 200.8
Lead (µg/L as Pb)	0.018 µg/L, 0.03 µg/L	0.1 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Magnesium (µg/L as Mg)	2.31 µg/L, 6.48 µg/L	5 µg/L, 50 µg/L	EPA 200.8, EPA 200.7
Manganese (µg/L as Mn)	0.250 µg/L, 0.14 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Mercury (µg/L as Hg)	0.1 µg/L, 0.053 µg/L	0.2 µg/L, 1 µg/L	EPA 245.1, EPA 245.1
Molybdenum (µg/L as Mo)	0.069 µg/L, 0.12 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Nickel (µg/L as Ni)	0.151 µg/L, 0.07 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Potassium (µg/L as K)	5.24 µg/L, 44.38 µg/L	20 µg/L, 500 µg/L	EPA 200.8, EPA 200.7
Selenium (ug/l as Se)	0.094 µg/L, 0.14 µg/L	0.5 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Silver (ug/L as Ag)	0.040 µg/L, 0.01 µg/L	0.5 µg/L, 0.5 µg/L	EPA 200.8, EPA 200.8
Sodium (µg/L as Na)	10.40 µg/L, 21.68 µg/L	50 µg/L, 500 µg/L	EPA 200.8, EPA 200.7
Thallium (µg/L as Tl)	0.019 µg/L, 0.02 µg/L	0.1 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Vanadium (µg/L as V)	0.037 µg/L, 0.11 µg/L	0.1 µg/L, 1 µg/L	EPA 200.8, EPA 200.8
Zinc (µg/L as Zn)	1.00 µg/L, 1.04 µg/L	5 µg/L, 10 µg/L	EPA 200.8, EPA 200.8

\*Limits and methods for metals displayed in following format: Total and Dissolved Metals, Potentially Dissolved Metals

## 4.0 Flow Measurement Methods

Flow velocity measurements were taken at the river sampling locations where accessible. Flow measurements were not collected at areas where ice and snow buildup or high, fast flows prohibited safe access. The flow measurements obtained this sampling period are described in Section 2.3. Flow measurements were collected at DR-1, DR-2, DR-3, DR-4, DR-5, DR-6, DR-7, DR-4-SW, and DR-G. Refer to Figures 4 through 9 in Appendix E for Dolores River cross sections. The flowrates are presented on Tables 3A, 3D, 3E, 3F, and 3G in Appendix B.

Flow velocity readings and flowrate calculations were performed in accordance with AECI Standard Operating Procedures 3-4: Stream Flow Measurements and 3-6: Stream Flow Measurements with Portable Flowmeter. Flow velocity measurements collected during this sampling event were taken by use of a Hach FH950 Portable Velocity Meter at stations DR-1, DR-2, DR-5, DR-7, DR-4-SW, and DR-G using the six-tenths-depth method. This method uses the velocity at six-tenths of the depth as the mean velocity. This method is generally reliable between depths from 0.3 feet to 2.5 feet. Stream sections were selected with the desired characteristics of parallel flows, smooth streambed with minimal obstructions, a straight channel, and a flat streambed. The stream section, perpendicular to the flow was measured in feet. The width of the section was determined and divided into several sub-sections. Flow measurements of velocity (by the six-tenths-depth method) and water depth were measured at each sub-section. The flow meter was set to the 5 second fixed period average mode. Flows were calculated for each stream section using the water depth, horizontal distance, and averaged velocity data.

The St. Louis tunnel flow (DR-3) and St. Louis pond discharge (DR-6) currently have Parshall flumes installed. Flow measurements can be determined at these flumes when the depth of flow is known at a particular point. In order to continuously monitor and measure the depth of flow, depth measurement devices were installed on May 11<sup>th</sup>, 2011 and May 12<sup>th</sup>, 2011 at both the north and south flumes. An STI Ultrasonic IRU-5180 automated water level detector was installed at the north Parshall flume. In order to obtain further flow data, an OTT PLS submersible pressure transducer was installed at the north flume in December 2011. In January 2012, it was decided that the OTT PLS would be used exclusively at the north flume to report flow data, and that the ultrasonic meter would remain only as a backup flow measurement system. This was due in large part to the stability and uniformity observed in the data from the OTT PLS, as opposed to the ultrasonic meter, which exhibited greater instability and variability in the readings than the OTT PLS. The south flume has a submersible pressure transducer called the OTT Orpheus Mini. It records deviations from a pre-programmed depth of air space from the top edge of the flume down to the water level. Knowing then the total depth of the flume, the depth of flow can be determined. The post processed data for the OTT PLS, the STI Ultrasonic IRU-5180, and the OTT Orpheus Mini are given in Appendix I, J, and K, respectively.

On August 1, 2013, the battery powering the flow equipment at DR-3 was replaced. This action was performed in response to recent data loss issues from these devices.

## **5.0 Analytical Results**

The results of the laboratory analysis are summarized on Tables 4A – 4D in Appendix B. The data is organized by sample location. The Pace Lab reports for all results are contained in Appendix C.

## **6.0 Quality Control**

In addition to the standard laboratory Quality Control (QC), field QC samples for this sampling event included one field duplicate for every 10 samples collected and two Field Blanks (FB).

### **6.1 Field QC**

A field duplicate water sample was obtained for every 10 samples collected. Field duplicate samples are assigned the Sample IDs DR-8, DR-9, DR-10, DR-11, and so forth for as many samples as are collected. During the August 2013 sampling period these duplicate samples were collected at stations DR-4 (DR-8), DR-3 (DR-9), MW-101 (DR-10), AT-2 (DR-11), and DR-G (DR-12). During sample collection, the duplicate sample bottles were filled simultaneously from the discharge stream or source of water. The duplicate sample was submitted to the analytical laboratory as “blind duplicate” samples.

Tables 5A – 5E in Appendix B compare the analytical results for all parameters from all duplicate sample collected and present the Relative Percent Difference (RPD). The RPD for aqueous samples should be +/- 20%.

Two Field Blanks (FB) were collected by processing and analyzing a bottle of distilled water in the field and in the lab in the same manner as any other sample. The FB-LAB and FB-FIELD were analyzed for the same constituents as the other samples. Both had concentrations below the reporting limit for all metals except for a small number of total, dissolved, and potentially dissolved metals.

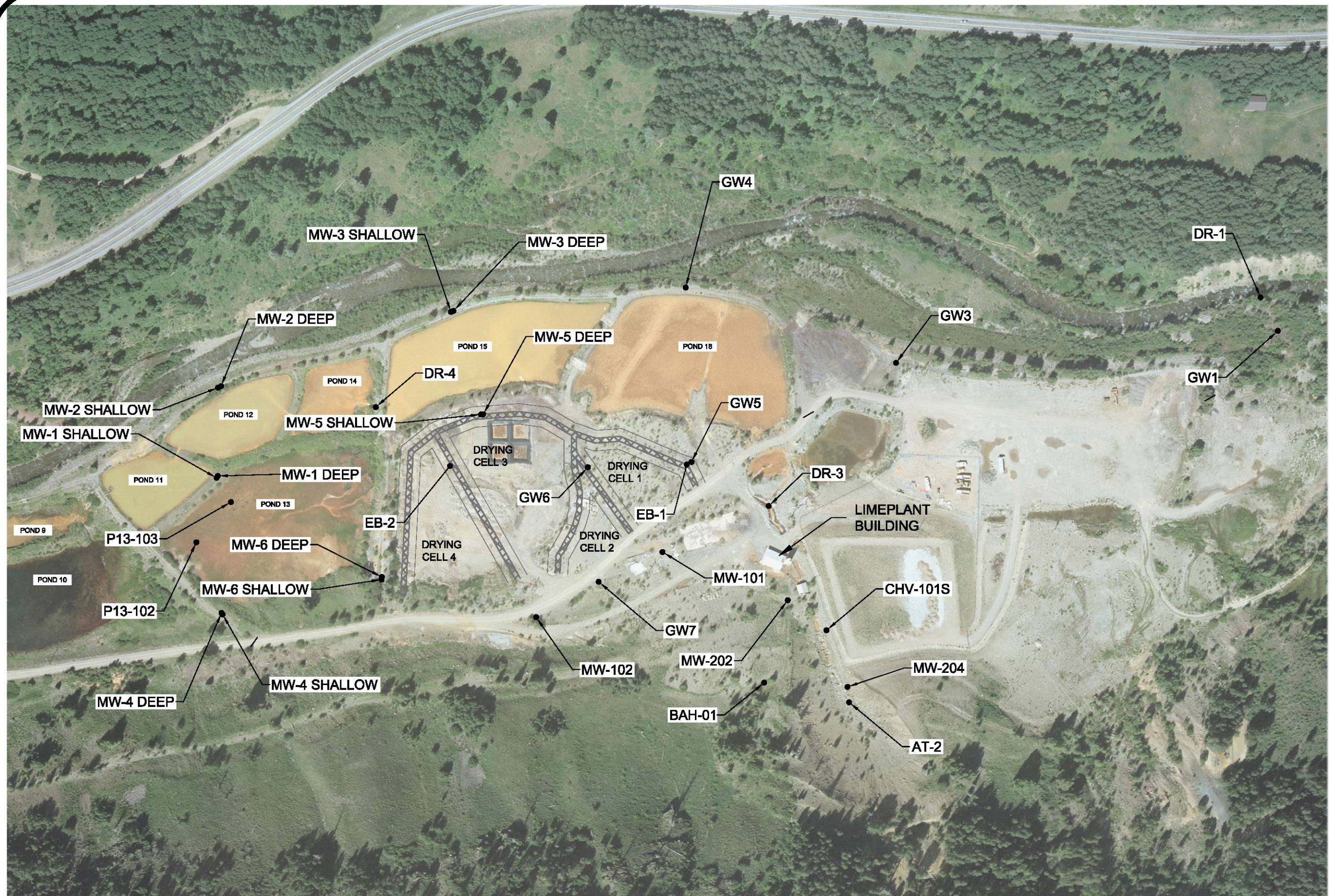
### **6.2 Laboratory QC**

The laboratory control sample (LCS), method blank, matrix spike, and matrix spike duplicate sample results were all within the established limits of concentration, percent recovery, and relative percent difference, with several minor exceptions. Please refer to the Laboratory QC Results in Appendix D for exceptions and for a full QC report.

**Appendix A**  
**Sampling Location Maps**



C:\Users\JLW\Documents\2013\2013 RICO Water Sampling Monthly Sampling Data\May 2013\Aggregated\Aggregated A - Sampling Location Map\May 2013 sampling location map.dwg

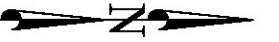


# 1 NORTHERN ST. LOUIS PONDS SAMPLING LOCATIONS

SCALE - 1" = 200'

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## General Notes



SCALE IN FEET  
0 100 200

No.	Revision/Issue	Date

BP



RICO WATER SAMPLING  
NORTHERN ST. LOUIS PONDS  
SAMPLING LOCATIONS

RICO,  
COLORADO

DRAWN BY: MAD

ENGINEER: MAD

APPROVED: MAD

Project

Date

Scale

30-Jul-13

1" = 200'

Sheet  
1



C:\Users\JLRC\Documents\2013\Rico Water Sampling Monthly Sampling Data\May 2013\Appendix A - Sampling Locations Map\May 2013 sampling locations map.dwg



## 2 SOUTHERN ST. LOUIS PONDS SAMPLING LOCATIONS

SCALE - 1" = 200'

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### General Notes



SCALE IN FEET  
0 100 200

No.	Revision/Issue	Date

BP



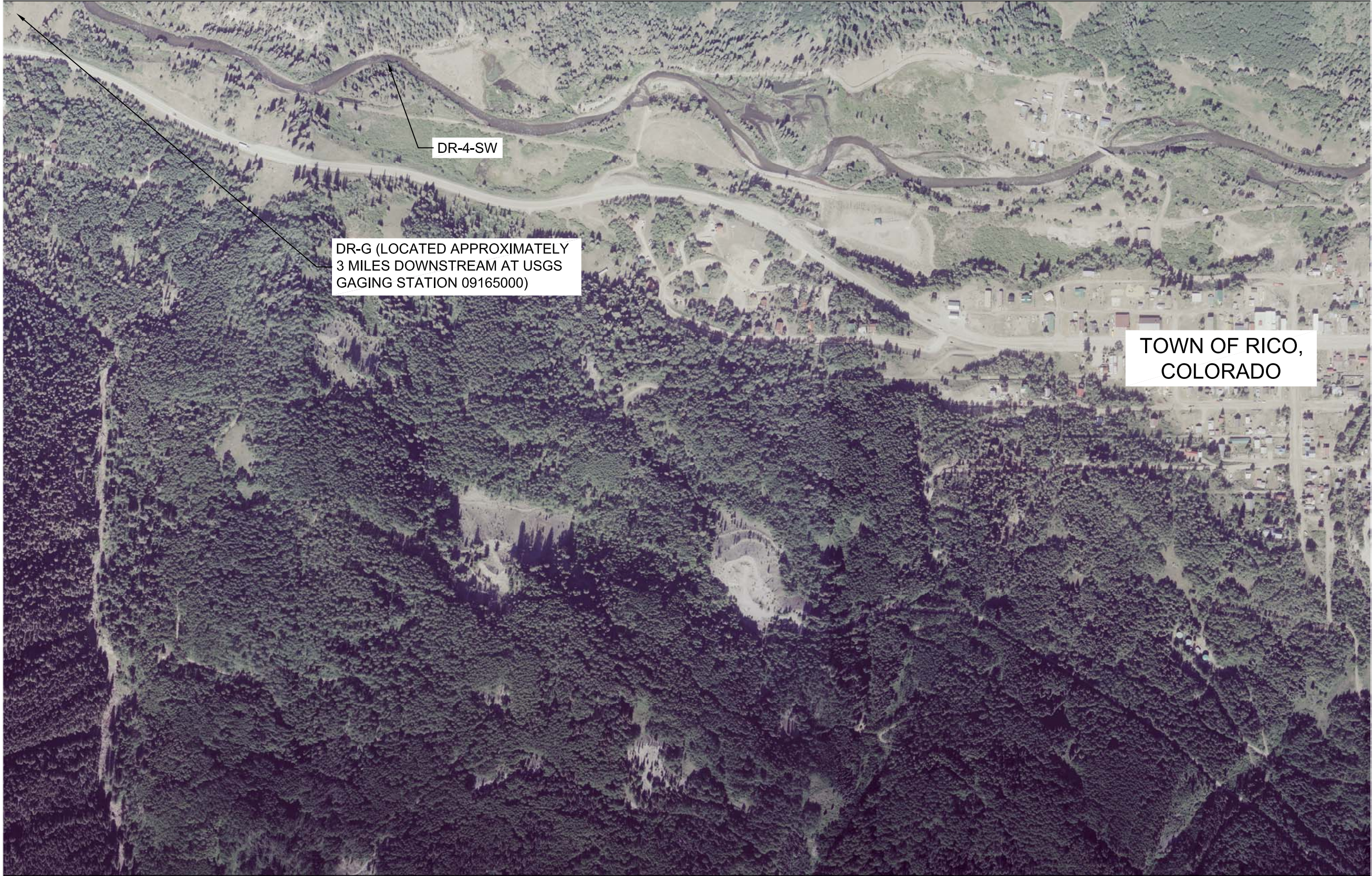
**RICO WATER SAMPLING**  
**SOUTHERN ST. LOUIS PONDS**  
**SAMPLING LOCATIONS**  
  
RICO,  
COLORADO

DRAWN BY:	MAD
ENGINEER:	MAD
APPROVED:	MAD

Project	Sheet
Date 30-Jul-13	2
Scale 1" = 200'	



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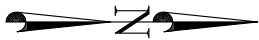


### 3 SAMPLING LOCATIONS SOUTH OF RICO, CO

SCALE - 1" = 500'

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General Notes



SCALE IN FEET  
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No.	Revision/Issue	Date

BP / ARCO



RICO SURFACE WATER  
SAMOPLING

SAMPLING LOCATIONS SOUTH  
OF RICO, CO

RICO,  
COLORADO

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Project	Sheet
Date 5-Apr-12	3
Scale 1" = 500'	



## **Appendix B**

### **Data Tables**



TABLE 3A - Surface Water Location Sampling Field Data and Station Information Summary, August 2013

			Field Measurements					GPS Benchmark Location (Colorado State Plane NAD83)		Flow Data			Comments	
Sample Location	Date of Sample Collection	Field Technicians	EC (mS/cm)	Oxydation Reduction Potential (ORP, mV)	Dissolved Oxygen (ppm)	pH	Temp (°C)	Northing	Easting	Stream Cross section area (ft^2)	Flowrate cfs / gpm			
DR-1	8/20/2013	T. Barbee, M. Capener	0.269	-22.7	5.75	8.16	13.32	1389970.4600	2267573.6490	26.5	32.3	14510	Cross section on the Dolores River above St. Louis settling pond system (approximately 800 ft north of the northern edge of Pond 18). Flow measurements were collected by flowmeter.	
DR-2	8/20/2013	T. Barbee, M. Capener	0.322	-42.1	6.50	7.64	13.97	1386660.9610	2267971.4630	30.6	31.4	14070	Cross section on the Dolores River, approximately 150 ft north of system outfall. Flow measurements were collected by flowmeter.	
DR-3	8/27/2013	T. Barbee, M. Capener	1.342	-22.3	5.29	6.54	6.55	1388963.0808	2268004.6974	NA	Ultrasonic	1.22	547.5	St Louis adit discharge. Flow measurement by installed Parshall Flume. Equipment at north flume suffered several power failures and data could not be obtained during some portions of the month. Manual measurement collected on 8/27/13 at 3:45 pm.
											Transducer	1.28	574.5	
											Manual	1.10	493.7	
DR-4	8/23/2013	T. Barbee, M. Capener	1.370	-24.6	7.44	7.42	17.32	1388153.6284	2267799.1579	NA	1.11	498.2	Pond 15 discharge. Flow measurements in both discharge pipes collected by flowmeter.	
DR-5	8/20/2013	T. Barbee, M. Capener	1.455	-22.3	5.20	7.15	18.04	1387273.4503	2268024.8524	NA	0.98	439.8	Pond 8 discharge. Flow measurements by flowmeter at spillway. Due to the shallow water and multiple paths, accurate flow measurements could not be determined for this sampling location and period. Flows estimated at spillway to be 60% of total flow.	
DR-6	8/20/2013	T. Barbee, M. Capener	1.528	-29.2	5.91	6.96	16.69	1386431.4984	2267964.5711	NA	Transducer	0.68	305.2	Outfall to Dolores River. Flow measurement by installed Parshall Flume. Water level by OTT Orpheus Mini submersible pressure transducer. Manual flow measurement collected on 8/20/13 at 11:30 am.
											Manual	0.51	229.8	
DR-7	8/7/2013	T. Barbee, M. Capener	0.462	-21.2	6.29	6.65	11.07	1385880.1050	2267983.4510	25.8	36.0	16152	Cross section on the Dolores River, approximately 500 ft below St. Louis settling pond system outfall. Flow measurements were collected by flowmeter.	
DR-4-SW	8/20/2013	T. Barbee, M. Capener	0.399	-40.5	7.00	7.78	11.75	1379176.1190	2266285.0850	23.4	27.3	12270	Cross section on the Dolores River approximately 100 below the Silver Swan site. Flow measurements were collected by flowmeter.	
DR-G	8/20/2013	T. Barbee, M. Capener	0.403	-37.7	7.26	7.93	11.01	1364029.7850	2258752.9060	21.7	31.8	14265	Cross section on the Dolores River at USGS gauging station #09165000, approximately 3.5 miles downstream of the Silver Swan site. Flow measurements were collected by flowmeter.	

TABLE 3B - Groundwater Well Sampling Field Data and Station Information Summary, August 2013

			Field Measurements								GPS Casing Location (Colorado State Plane NAD83)		Comments
Sample Location	Date of Sample Collection	Field Technicians	EC (mS/cm)	Oxydation Reduction Potential (ORP, mV)	Dissolved Oxygen (ppm)	pH	Temp (°C)	Well Casing Elevation (ft)	Measured Depth to Water (ft)	Well Water Elevation (ft)	Northing	Easting	
GW-1	8/27/2013	T. Barbee, M. Capener	0.356	2.8	1.41	2.33	11.55	8840.130	2.36	8837.770	1390006.0210	2267642.6870	Located on the north end of the site, approximately a quarter mile north of the northern edge of Pond 18.
GW-3	8/22/2013	T. Barbee, M. Capener	0.925	-30.4	0.97	6.55	11.89	8836.680	13.04	8823.640	1389221.9930	2267708.3940	Located approximately 200 feet north of the northern edge of pond 18, and approximately 60 feet west of the main access road.
GW-4	8/27/2013	T. Barbee, M. Capener	0.857	-8.6	0.41	6.80	11.41	8826.790	10.51	8816.280	1388790.0720	2267553.5420	Located on the western flood dike of Pond 18, approximately midway along the dike.
GW-5	8/29/2013	T. Barbee, M. Capener	2.422	-47.8	0.16	6.79	10.01	8839.520	22.49	8817.030	1388802.0650	2267911.8020	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1.
GW-6	8/22/2013	T. Barbee, M. Capener	2.385	-70.0	0.14	5.97	11.93	8837.450	21.47	8815.980	1388589.3950	2267922.5090	Located on the middle of the former Pond 17 area, or on the western edge of the south dike of the newly constructed drying cell 1.
GW-7	8/22/2013	T. Barbee, M. Capener	1.653	-34.2	0.00	5.93	13.28	8840.000	23.30	8816.700	1388611.4370	2268158.0170	GW-7 Located on the eastern edge of the access road directly across from the former Pond 17, or directly across from the newly constructed drying cell 2.
EB-1	8/23/2013	T. Barbee, M. Capener	1.853	-44.6	1.02	6.88	12.43	8839.860	22.88	8816.980	1388792.4420	2267916.9080	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1. It is within ten feet of GW-5.
EB-2	8/22/2013	T. Barbee, M. Capener	3.755	-61.4	0.48	5.58	14.22	8829.840	17.12	8812.720	1388306.1480	2267920.2500	Located on the southern portion of the former Pond 16 area, or on the western edge of the south dike of the newly constructed drying cell 3.
MW-1 SHALLOW	8/27/2013	T. Barbee, M. Capener	1.396	-20.2	1.49	6.93	15.91	8810.870	6.70	8804.170	1387826.7470	2267944.5160	Both wells are located about 4 feet apart on the western embankment of Pond 13 at the division between Pond 11 and Pond 12.
MW-1 DEEP	8/27/2013	T. Barbee, M. Capener	1.431	-51.7	0.35	6.84	15.52	8810.850	9.29	8801.560	1387829.4070	2267940.5680	
MW-2 SHALLOW	8/23/2013	T. Barbee, M. Capener	CNM; Not enough water to sample					8810.230	10.00	8800.230	1387829.7580	2267759.0810	Both wells are located about 4 feet apart on the western flood embankment of Pond 12, about mid-way along the pond. MW-2 SHALLOW could not be sampled due to insufficient water depth to collect samples.
MW-2 DEEP	8/23/2013	T. Barbee, M. Capener	1.457	-3.90	2.12	6.84	13.61	8810.210	10.10	8800.110	1387836.0950	2267756.0910	
MW-3 SHALLOW	8/23/2013	T. Barbee, M. Capener	CNM; Well is dry.					8819.570	-	-	1388308.0910	2267603.5420	Both wells are located about 4 feet apart on the western flood embankment of Pond 15, on the southern half of the embankment. MW-3 SHALLOW was dry and could not be sampled.
MW-3 DEEP	8/23/2013	T. Barbee, M. Capener	1.458	-12.0	0.70	6.63	15.35	8819.720	9.99	8809.730	1388313.2060	2267601.6050	
MW-4 SHALLOW	8/22/2013	T. Barbee, M. Capener	1.527	-27.7	1.63	6.33	14.94	8816.830	17.14	8799.690	1387836.9670	2268221.9370	Both wells are located about 4 feet apart on the southern embankment of Pond 13, approximately 60 west of the main east access road.
MW-4 DEEP	8/27/2013	T. Barbee, M. Capener	1.671	9.6	0.81	6.27	14.06	8816.770	16.81	8799.960	1387839.1320	2268224.8950	
MW-5 SHALLOW	8/29/2013	T. Barbee, M. Capener	3.406	75.0	0.00	4.60	10.23	8830.950	16.37	8814.580	1388369.7050	2267814.3980	Both wells are located about 4 feet apart on the western dike of drying cell 3 (refer to Figure 2).
MW-5 DEEP	8/29/2013	T. Barbee, M. Capener	2.094	-30.1	0.40	6.37	12.60	8830.730	17.51	8813.220	1388374.5740	2267813.8150	
MW-6 SHALLOW	8/27/2013	T. Barbee, M. Capener	2.260	-49.0	0.00	6.33	11.83	8830.580	23.41	8807.170	1388166.1000	2268148.1000	Both wells are located about 4 feet apart on northern embankment of Pond 13, approximately 75 feet west of the main east access road.
MW-6 DEEP	8/27/2013	T. Barbee, M. Capener	1.665	-58.2	0.13	6.59	13.09	8830.110	23.22	8806.890	1388165.5290	2268153.3270	
MW-101	8/29/2013	T. Barbee, M. Capener	1.766	-16.9	0.68	6.25	12.94	8845.417	27.81	8817.607	1388742.4460	2268096.7400	Located east of Drying Cells 1 / 2 boundary dike, inside the St Louis Access road loop, south of the St. Louis lab bldg.
MW-102	8/29/2013	T. Barbee, M. Capener	1.303	-10.8	1.95	6.54	11.98	8841.304	24.38	8816.924	1388482.8360	2268230.4920	Located east of Drying Cell 4, in the St Louis Access road at the south end of the road loop.
MW-103	8/23/2013	T. Barbee, M. Capener	1.796	-29.3	1.83	6.31	15.23	8797.799	6.89	8790.909	1387371.9920	2268003.3380	Located on the western flood embankment of Pond 9, approximately 175 feet south of the north west corner of Pond 9.
MW-104	8/23/2013	T. Barbee, M. Capener	1.471	-9.5	2.35	6.77	16.26	8785.598	4.09	8781.508	1390006.0210	2267642.6870	Located on the western flood embankment between Ponds 6 and 7.
MW-202	8/23/2013	T. Barbee, M. Capener	CNM; Not enough water to sample					8859.206	34.40	8824.806	1388999.6490	2268195.9780	Located approximately 30 feet south of the remnant portal structure of the St. Louis Adit discharge. Well could not be sampled due to insufficient water depth to collect samples.
MW-204	8/29/2013	T. Barbee, M. Capener	CNM; Broken pipe at approximately 3.5' below ground surface					8865.954	15.20	8850.754	1389122.4820	2268373.7870	Located west of collapsed St. Louis adit base, approximately 30 feet west of AT-2. Pipe is broken at approximately 3.5' below ground surface.
P13-102	8/27/2013	T. Barbee, M. Capener	1.669	-29.1	0.23	6.49	10.99	8810.643	10.47	8800.173	1387785.4540	2268076.6470	Located on Pond 13 dike near southeast corner of pond.
P13-103	8/27/2013	T. Barbee, M. Capener	1.628	-79.2	0.11	6.66	11.77	8811.464	10.58	8800.884	1387856.4350	2267994.0830	Located on Pond 13 causeway just north of the dike.
CHV-101 S	8/29/2013	T. Barbee, M. Capener	1.446	4.6	3.17	6.56	15.77	8858.931	37.10	8821.831	1389079.2880	2268257.5150	Well is located approximately 125 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel. Sampling by bailer.

Angle Boreholes

AT-2	8/29/2013	T. Barbee, M. Capener	0.629	-89.9	0.00	8.04	19.34	8866.206	11.77	8874.805	1389125.5680	2268405.5140	Angle borehole casing is located approximately 220 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel.
BAH-01	8/29/2013	T. Barbee, M. Capener	1.393	-44.0	0.00	7.58	14.61	8912.639	220.00	8896.418	1388951.4380	2268365.0940	Angle borehole casing which accesses the mine tunnel.

TABLE 3C - Quality Control Samples Field Data and Station Information Summary, August 2013

			Field Measurements					Comments
Sample Location	Date of Sample Collection	Field Technicians	EC (mS/cm)	Oxydation Reduction Potential (ORP, mV)	Dissolved Oxygen (ppm)	pH	Temp (°C)	

Duplicate Samples

DR-8	8/23/2013	T. Barbee, M. Capener	1.385	-22.9	7.45	7.48	17.33	Duplicate of DR-4
DR-9	8/27/2013	T. Barbee, M. Capener	1.353	-21.9	5.34	6.58	20.10	Duplicate of DR-3
DR-10	8/29/2013	T. Barbee, M. Capener	1.752	-16.9	0.41	6.19	13.33	Duplicate of MW-101
DR-11	8/29/2013	T. Barbee, M. Capener	0.625	-74.1	0.53	7.48	19.41	Duplicate of AT-2
DR-12	8/20/2013	T. Barbee, M. Capener	0.403	-37.7	7.26	7.94	11.03	Duplicate of DR-G

Field Blanks

FB-FIELD	8/28/2013	T. Barbee, M. Capener	0.003	-84.2	5.51	8.68	15.33	Field blank collected in the field
FB-LAB	8/27/2013	T. Barbee, M. Capener	0.009	31.9	5.01	7.85	14.39	Field blank collected in the lab

Table 3D - DR-1 Cross Section Composite Sampling Field Data and Flow Information Summary, August 2013

			Field Measurements					GPS Location (Colorado State Plane NAD83)		Flow Data				Comments
Sample Location	Date of Sample Collection	Field Technicians	EC (mS/cm)	Oxydation Reduction Potential (ORP, mV)	Dissolved Oxygen (ppm)	pH	Temp (°C)	Northing*	Easting*	Compartment Geometry		Average Flowrate		
										Width (ft)	Area (ft^2)	cfs	gpm	
COMPARTMENT 1	8/20/2013	T. Barbee, M. Capener	0.268	-39.4	5.82	8.32	15.30	1389969.3320	2267567.4941	4	2.10	2.60	1165	
COMPARTMENT 2	8/20/2013	T. Barbee, M. Capener	0.268	-34.2	6.16	8.29	13.29	1389968.5219	2267563.5769	4	4.50	12.16	5457	
COMPARTMENT 3	8/20/2013	T. Barbee, M. Capener	0.268	-31.9	6.45	8.25	13.27	1389967.7119	2267559.6598	4	7.10	12.31	5522	
COMPARTMENT 4	8/20/2013	T. Barbee, M. Capener	0.268	-39.8	6.67	8.23	13.26	1389966.9018	2267555.7427	4	6.20	4.49	2016	
COMPARTMENT 5	8/20/2013	T. Barbee, M. Capener	0.268	-28.8	5.92	8.22	13.26	1386650.8741	2267931.3986	4	4.80	0.57	254	
COMPARTMENT 6	8/20/2013	T. Barbee, M. Capener	0.268	-26.4	6.03	8.19	13.27	1389965.2817	2267547.9085	4	1.80	0.21	96	
TOTAL COMPOSITE	8/20/2013	T. Barbee, M. Capener	0.270	-14.0	6.53	8.12	13.06	-	-	24	26.5	32.3	14510	

\*Northing and easting values are estimates based on surveyed benchmark on east bank of river at this location

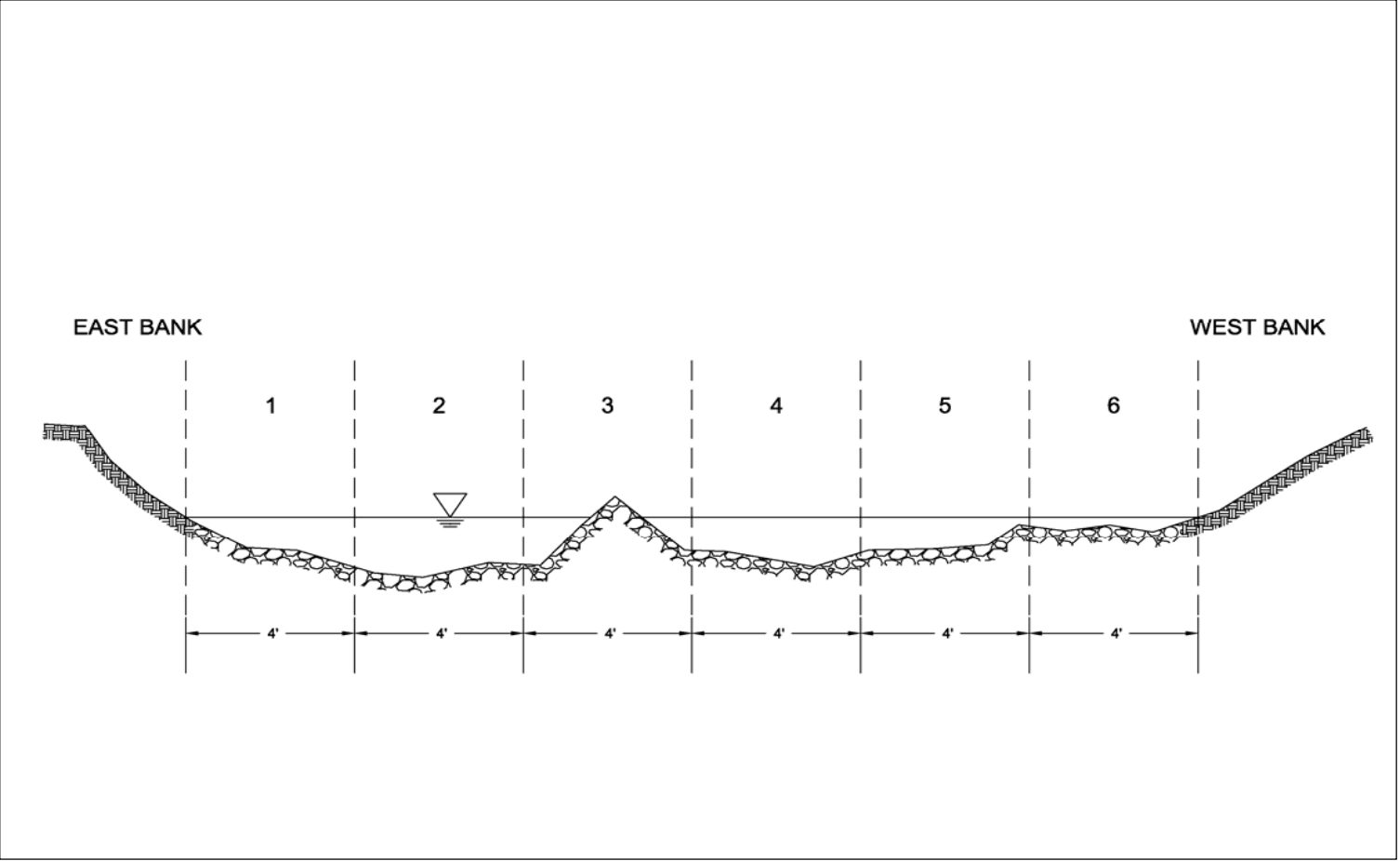


Table 3E - DR-2 Cross Section Composite Sampling Field Data and Flow Information Summary, August 2013

			Field Measurements					GPS Location (Colorado State Plane NAD83)		Flow Data				Comments
Sample Location	Date of Sample Collection	Field Technicians	EC (mS/cm)	Oxydation Reduction Potential (ORP, mV)	Dissolved Oxygen (ppm)	pH	Temp (°C)	Northing*	Easting*	Compartment Geometry		Average Flowrate		
										Width (ft)	Area (ft^2)	cfs	gpm	
COMPARTMENT 1	8/20/2013	T. Barbee, M. Capener	0.317	-44.0	6.85	7.63	13.91	1386655.7541	2267950.8128	5	2.25	1.09	489	
COMPARTMENT 2	8/20/2013	T. Barbee, M. Capener	0.303	-40.7	6.14	7.69	13.83	1386654.5352	2267945.9636	5	6.30	6.09	2733	
COMPARTMENT 3	8/20/2013	T. Barbee, M. Capener	0.299	-39.2	6.64	7.68	13.86	1386653.3163	2267941.1145	5	5.90	8.04	3608	
COMPARTMENT 4	8/20/2013	T. Barbee, M. Capener	0.309	-38.0	6.45	7.63	13.96	1386652.0974	2267936.2653	5	6.40	8.99	4035	
COMPARTMENT 5	8/20/2013	T. Barbee, M. Capener	0.354	-35.4	6.73	7.49	14.18	1386650.8741	2267931.3986	5	6.90	5.17	2320	
COMPARTMENT 6	8/20/2013	T. Barbee, M. Capener	0.409	-33.0	6.18	7.34	14.53	1386649.6552	2267926.5495	5	2.80	1.97	884	
TOTAL COMPOSITE	8/20/2013	T. Barbee, M. Capener	0.340	32.7	3.98	7.50	17.42	-	-	30	30.6	31.4	14069.9	

\*Northing and easting values are estimates based on surveyed benchark on east bank of river at this location

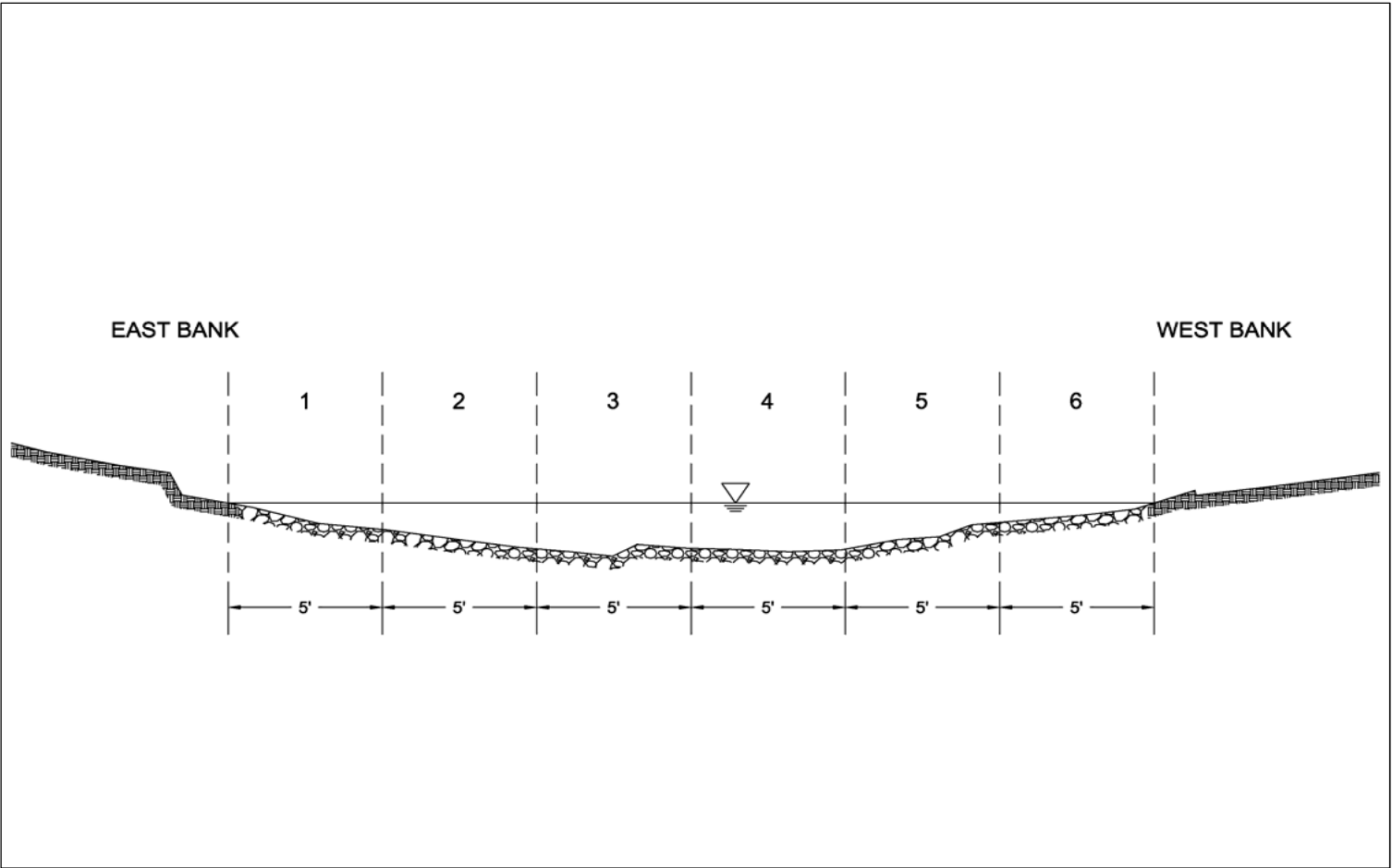


Table 3F - DR-7 Cross Section Composite Sampling Field Data and Flow Information Summary, August 2013

			Field Measurements					GPS Location (Colorado State Plane NAD83)		Flow Data				Comments
Sample Location	Date of Sample Collection	Field Technicians	EC (mS/cm)	Oxydation Reduction Potential (ORP, mV)	Dissolved Oxygen (ppm)	pH	Temp (°C)	Northing*	Easting*	Compartment Geometry		Average Flowrate		
										Width (ft)	Area (ft²)	cfs	gpm	
COMPARTMENT 1	8/7/2013	T. Barbee, M. Capener	0.468	-29.4	6.56	6.56	11.04	1385879.4134	2267955.6833	5	1.25	0.60	271	
COMPARTMENT 2	8/7/2013	T. Barbee, M. Capener	0.440	-28.3	6.71	6.71	10.92	1385877.9276	2267950.9092	5	2.95	2.82	1264	
COMPARTMENT 3	8/7/2013	T. Barbee, M. Capener	0.405	-27.6	6.79	6.79	10.77	1385876.4418	2267946.1350	5	4.50	7.67	3443	
COMPARTMENT 4	8/7/2013	T. Barbee, M. Capener	0.383	-27.0	6.85	6.85	10.70	1385874.9560	2267941.3609	5	4.40	9.41	4222	
COMPARTMENT 5	8/7/2013	T. Barbee, M. Capener	0.351	-26.2	6.94	6.94	10.58	1385873.4702	2267936.5868	5	3.50	4.54	2038	
COMPARTMENT 6	8/7/2013	T. Barbee, M. Capener	0.348	-24.8	6.89	6.89	10.58	1385871.9844	2267931.8126	5	3.20	3.61	1622	
COMPARTMENT 7	8/7/2013	T. Barbee, M. Capener	0.346	-24.5	6.78	6.78	10.59	1385870.4986	2267927.0385	5	2.70	5.30	2380	
COMPARTMENT 8	8/8/2013	T. Barbee, M. Capener	0.350	-22.2	6.79	6.72	10.63	1385868.8642	2267921.7869	6	3.30	2.03	912	
TOTAL COMPOSITE	8/7/2013	T. Barbee, M. Capener	0.373	-23.1	4.42	6.75	11.11	-	-	41	25.8	36.0	16152	

\*Northing and easting values are estimates based on surveyed benchmark on east bank of river at this location

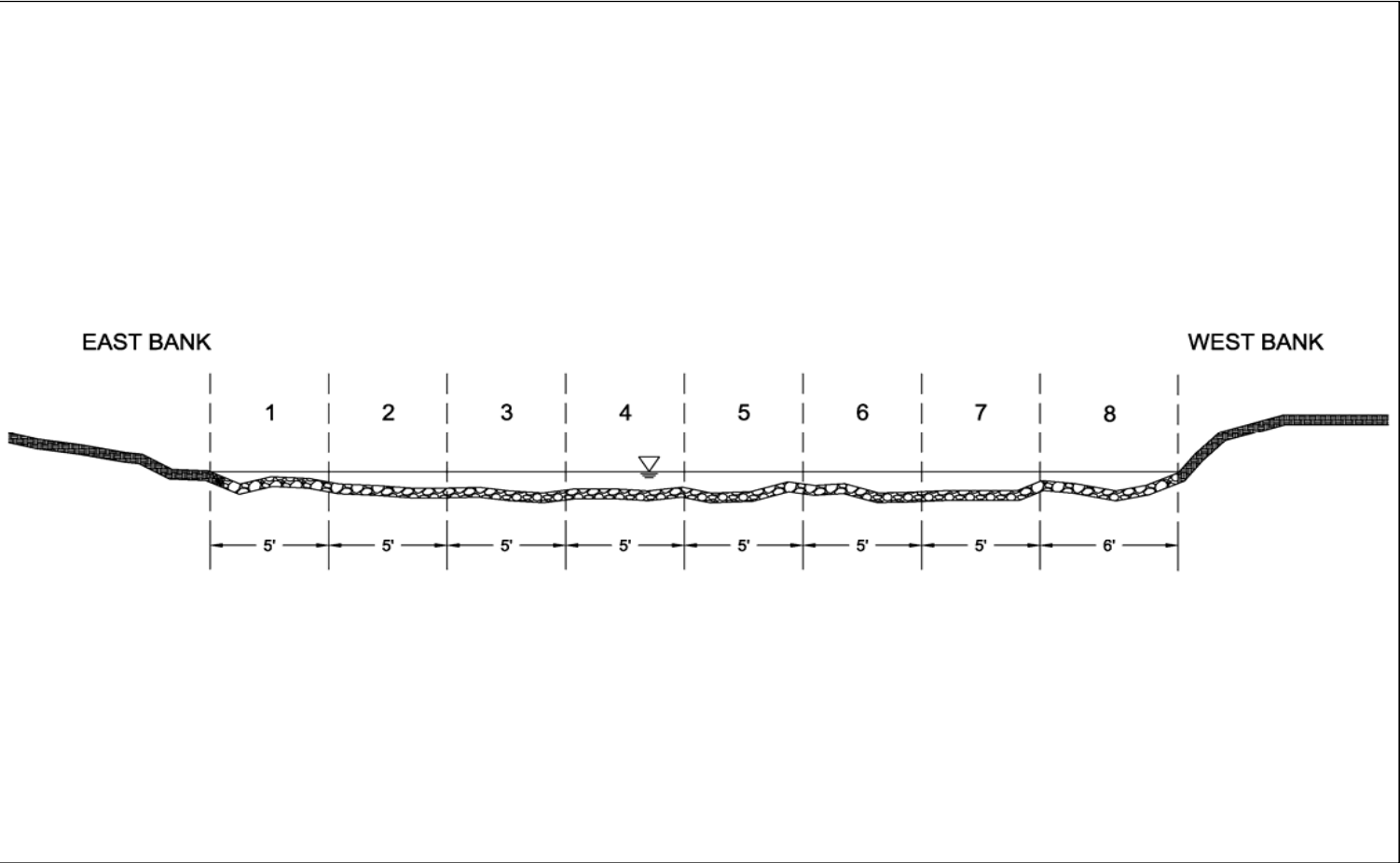


Table 3G - DR-4-SW Cross Section Composite Sampling Field Data and Flow Information Summary, August 2013

			Field Measurements					GPS Location (Colorado State Plane NAD83)		Flow Data				Comments
Sample Location	Date of Sample Collection	Field Technicians	EC (mS/cm)	Oxydation Reduction Potential (ORP, mV)	Dissolved Oxygen (ppm)	pH	Temp (°C)	Northing*	Easting*	Compartment Geometry		Average Flowrate		
										Width (ft)	Area (ft^2)	cfs	gpm	
COMPARTMENT 1	8/20/2013	T. Barbee, M. Capener	0.399	-38.0	4.14	7.69	11.76	1379179.8003	2266277.0079	6	2.95	2.43	1090	
COMPARTMENT 2	8/20/2013	T. Barbee, M. Capener	0.398	-36.6	7.30	7.57	11.82	1379182.2489	2266271.5302	6	5.70	7.54	3385	
COMPARTMENT 3	8/20/2013	T. Barbee, M. Capener	0.398	-35.4	7.40	7.51	11.86	1379184.6956	2266266.0566	6	5.20	8.45	3794	
COMPARTMENT 4	8/20/2013	T. Barbee, M. Capener	0.398	-34.8	6.91	7.44	11.92	1379187.1441	2266260.5789	6	4.50	5.76	2584	
COMPARTMENT 5	8/20/2013	T. Barbee, M. Capener	0.398	-34.6	7.16	7.42	11.97	1379189.5927	2266255.1013	6	3.10	1.90	855	
COMPARTMENT 6	8/20/2013	T. Barbee, M. Capener	0.398	-34.6	6.82	7.40	12.08	1379192.0412	2266249.6236	6	1.90	1.25	562	
													0	
TOTAL COMPOSITE	8/20/2013	T. Barbee, M. Capener	0.404	-31.2	5.40	7.32	14.66	-	-	36	23.4	27.3	12270	

\*Northing and easting values are estimates based on surveyed benchark on east bank of river at this location

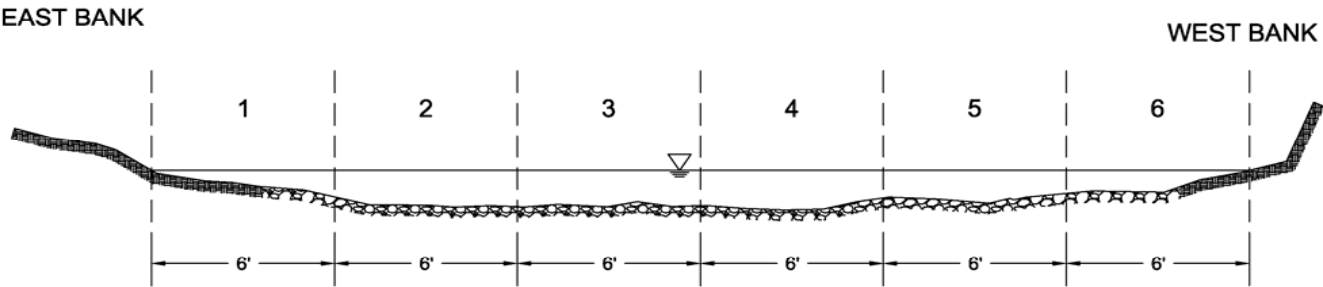


TABLE 4A - Surface Water Analytical Sampling Results Summary, August 2013

		Metals (µg/L)																				Non-Metals (mg/L, unless otherwise indicated)																			
Field Sample ID	Date Collected	Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Carbonate (CaCO3)	Alkalinity, Total as CaCO3	Chloride	Cyanide	Hardness (µg/L as CaCO3)	Nitrogen, NO2 plus NO3	Salinity, as dissolved solids	Salinity, as sea water (PSU)	Silica (µg/L)	Sulfate	Sulfide	TDS	TOC	TSS
DR-1	8/20/13	Total	460	<0.50	0.54	67.7	<0.20	<0.080	39600	0.72	<0.50	1.1	594	0.59	8940	19.5	<0.20	1.1	<0.50	833	0.55	<0.50	2440	<0.10	1.6	6.0	127	<20.0	127	1.2	<0.0050	123000	0.20	153	0.12	9170	54.7	<0.050	149	1.4	14.0
		Dissolved	55.0	<0.50	<0.50	63.0	<0.20	<0.080	38100	1.1	<0.50	1.6	80.9	1.5	5720	11.8	<0.20	1.0	3.2	696	<0.50	<0.50	2510	<0.10	0.27	<5.0															
		Potentially Dissolved	43.6J	0.10J	0.20J	59.0	0.20J	0.058J	37400	0.60J	0.084J	0.78J	122	0.36J	5480	17.8	<0.20	1.1	0.66J	714	<1.0	0.051J	2580	0.047J	<1.0	3.4J															
DR-2	8/20/13	Total	658	<0.50	<0.50	68.3	<0.20	<0.080	46500	1.0	<0.50	1.9	516	0.51	6450	88.1	<0.20	1.4	<0.50	1050	0.60	<0.50	2840	<0.10	2.3	8.5	130	<20.0	130	1.1	0.0061	143000	0.17	206	0.16	9710	58.0	<0.050	182	1.3	18.0
		Dissolved	7.6	<0.50	<0.50	59.4	<0.20	<0.080	44000	0.50	<0.50	1.4	<50.0	0.10	6100	76.9	<0.20	1.2	2.3	797	0.54	<0.50	2800	<0.10	0.12	6.2															
		Potentially Dissolved	50.9	0.081J	0.10J	58.1	0.20J	0.071J	42700	0.38J	0.15J	0.82	15.1	0.13	1.3	808	88.2	<0.20	1.1	1.3	0.037J	2820	<1.0	17.7																	
DR-3	8/27/13	Total	822	<0.50	1.5	21.9	0.85	21.1	263000	<0.50	2.8	179	8380	15.6	20500	76.9	<0.20	17.4	4.2	3330	<0.50	<0.50	14300	<0.10	0.18	4080	144	<20.0	144	1.4	<0.0050	741000	0.13	772	0.60	19500	604	<0.050	1110	<0.50	22.0
		Dissolved	20.6	<0.50	<0.50	19.9	0.31	18.9	256000	<0.50	2.7	8.1	315	<0.10	20400	1820	<0.20	14.9	6.0	3280	<0.50	<0.50	14900	<0.10	<0.10	3640															
		Potentially Dissolved	709	0.19J	1.1	20.3	0.74	20.3	238000	1.3	2.6	163	7820	14.8	19000	1850	<0.20	18.0	4.3	3140	0.19J	0.044J	14400	0.13J	<1.0	3620															
DR-4	8/27/13	Total	337	<0.50	<0.50	21.4	0.39	16.5	258000	<0.50	2.7	61.3	2810	4.2	21100	1760	<0.20	17.0	3.2	1760	<0.50	<0.50	14400	<0.10	0.12	2870	145	<20.0	145	<1.0	<0.0050	730000	<0.10	758	0.59	16900	565	<0.050	1050	<0.50	8.0
		Dissolved	12.2	<0.50	<0.50	21.5	0.20	21.4	250000	<0.50	2.7	3.4	<50.0	<0.10	20700	1700	<0.20	15.0	3.9	3200	<1.0	<0.50	14400	<0.10	<0.10	2520															
		Potentially Dissolved	249	0.076J	0.36J	21.8	0.25J	16.0	237000	0.65J	2.4	56.2	2610	6.0	19300	1710	<0.20	55.9	3.9	3090	<1.0	0.020J	14300	0.070J	<1.0	2660															
DR-5	8/20/13	Total	130	<0.50	2.8	22.2	<0.20	10.2	262000	<0.50	2.1	17.4	1100	5.2	22300	1530	<0.20	15.8	<0.50	3750	<0.50	<0.50	16500	<0.10	<0.10	2050	156	<20.0	156	1.2	<0.0050	747000	0.14	888	0.69	18100	672	<0.050	1060	<0.50	6.0
		Dissolved	8.3	<0.50	1.7	21.2	<0.20	3.5	258000	<0.50	2.0	0.69	<50.0	0.10	22100	1510	<0.20	16.6	<0.50	3720	<0.50	<0.50	16600	<0.10	<0.10	1770															
		Potentially Dissolved	102	0.22J	1.1	19.6	0.35J	9.2	261000	0.58J	1.7	14.1	80.9	0.10	20900	1520	<0.20	16.2	4.0	0.046J	16300	<0.10	0.046J	16300	<0.10	0.065J															
DR-6	8/20/13	Total	21.1	<0.50	<0.50	21.4	<0.20	9.5	276000	<0.50	1.2	8.7	375	0.56	16700	1220	<0.20	14.1	<0.50	4670	<0.50	<0.50	19500	<0.10	<0.10	1830	148	<20.0	148	1.4	<0.0050	800000	0.12	899	0.70	20400	1010	<0.050	1090	<0.50	<5.0
		Dissolved	5.4	<0.50	<0.50	20.4	<0.20	9.1	268000	<0.50	1.4	1.8	<50.0	0.10	25700	1220	<0.20	14.3	<0.50	4650	<0.50	<0.50	19600	<0.10	<0.10	1570															
		Potentially Dissolved	28.9J	0.16J	<0.10	21.8	0.27J	8.5	245000	0.60J	0.92J	5.7	345	1.1	22800	1130	<0.20	12.5	2.9	4400	<1.0	0.043J	18700	0.061J	<1.0	1330															
DR-7	8/7/13	Total	586	<0.50	1.4	61.8	<0.20	0.51	65200	0.91	0.56	1.8	949	1.0	8930	167	<0.20	1.9	1.4	1660	0.54	<0.50	4800	<0.10	1.4	89.7	134	<20.0	134	1.1	<0.0050	199000	0.26	158	0.12	10900	92.0	<0.050	1600	1.2	44.0
		Dissolved	9.0	<0.50	0.80	54.9	<0.20	0.41	61800	<0.50	0.50	1.3	<50.0	0.12	8320	151	<0.20	1.8	4.3	1460	<0.50	<0.50	4700	<0.10	<0.10	77.0															
		Potentially Dissolved	112	0.16J	0.76J	57.8	0.060J	0.73	64400	0.41J	0.28J	1.3	437	0.86J	8660	165	<0.20	1.5	0.81J	1530	0.20J	0.16J	5160	0.27J	<1.0	86.7															
DR-4-SW	8/20/13	Total	1200	<0.50	0.73	73.3	<0.20	0.41	59300	1.6	<0.50	1.7	783	0.78	8210	128	<0.20	1.7	<0.50	1570	0.51	<0.50	3910	<0.10	4.1	75.2	141	<20.0	141	1.3	<0.0050	182000	<0.10	234	0.18	13500	83.8	<0.050	234	1.4	17.0
		Dissolved	7.1	<0.50	<0.50	63.1	<0.20	0.38	58100	<0.50	<0.50	2.0	<50.0	<0.10	7820	117	<0.20	1.5	2.4	1180	0.50	<0.50	3920	<0.10	<0.10	61.8															
		Potentially Dissolved	58.8	0.080J	0.26J	58.6	0.21J	0.39J	53000	0.52J	0.26J	0.96J	177	1.5	7020	116	<0.20	1.2	0.24J	1100	<1.0	0.040J	3700	<1.0	<1.0	62.3															
DR-G	8/20/13	Total	6410	<0.50	2.3	59.1	<0.20	0.58	68000	0.9	<0.50	1.9	538	0.58	9410	106	<0.20	3.1	5.5	9400	0.78	<0.50	3940	<0.10	22.7	93.0	155	<20.0	155	1.6	<0.0050	203000	0.18	242	0.18	43800	76.5	<0.050	235	1.3	140
		Dissolved	7.1	<0.50	0.53	76.0	<0.20	0.73	57800	<0.50	<0.50	1.6	<50.0	<0.10	7820	36.5	<0.20	1.8	2.2	1120	0.63	<0.50	3780	<0.10	0.17	19.4															
		Potentially Dissolved	182	0.12J	0.48J	81.4	0.27J	0.48J	56800	0.42J	0.95J	2.5	489	1.9	7340	86.8	<0.20	1.1	2.2	1060	0.24J	0.039J	3490	0.033J	0.53J	61.8															





TABLE 4B - Groundwater Analytical Sampling Results Summary, August 2013

		Metals (µg/L)																				Non-Metals (mg/L, unless otherwise indicated)																						
Field Sample ID	Date Collected	Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Carbonate (CaCO3)	Alkalinity, Total as CaCO3	Chloride	Cyanide	Hardness (µg/L as CaCO3)	Nitrogen, NO2 plus NO3	Salinity, as dissolved solids	Salinity, as seawater (PSU)	Silica (µg/L)	Sulfate	Sulfide	TDS	TOC	TSS			
GW-1	8/27/13	Total	4070	<0.50	6.3	166	0.37	0.81	58900	4.3	4.6	29.7	6770	26.1	8140	876	0.26	2.0	8.2	1850	0.52	<0.50	2550	0.13	8.6	82.6																		
		Dissolved	170	<0.50	<0.50	70.3	<0.20	<0.080	57400	0.61	<0.50	2.1	267	0.82	6560	34.1	<0.20	1.3	2.0	835	<0.50	<0.50	2280	<0.10	0.40	5.7																		
		Potentially Dissolved	1300	<1.0	1.3	136	0.18J	0.66	50400	2.6	3.4	18.3	2620	18.8	6190	715	<0.20	0.46J	6.1	791	0.73J	0.37J	2390	0.024J	3.3	49.5																		
GW-3	8/22/13	Total	8930	0.58	15.4	277	0.52	2.3	144000	12.7	7.9	73.1	16700	144	22100	1700	<0.20	2.8	11.2	4350	5.3	1.0	3370	0.22	19.1	398	244	<20.0	244	2.0	<0.0050	450000	0.27	530	0.40	39600	244	<0.050	557	1.0	386			
		Dissolved	4.8	<0.50	<0.50	36.0	<0.20	0.66	161000	<0.50	<0.50	2.2	<50.0	0.11	18000	230	<0.20	0.81	0.80	2960	2.6	<0.50	3050	<0.10	0.10	51.7																		
		Potentially Dissolved	1770	0.29J	4.7	76.7	0.16J	1.7	140000	3.3	3.1	39.5	4160	66.7	17200	968	<0.20	0.40J	3.8	2970	2.6	0.12J	3000	0.34J	3.5	254																		
GW-4	8/27/13	Total	12000	<0.50	11.3	208	1.0	5.6	156000	18.4	9.0	78.9	27900	89.5	21400	1000	<0.20	9.7	16.0	4680	0.84	0.97	6320	0.28	27.0	511	223	<20.0	223	2.0	<0.0050	478000	<0.10	502	0.38	46700	232	<0.050	536	2.6	628			
		Dissolved	62.7	<0.50	<0.50	37.1	<0.20	0.22	127000	<0.50	0.84	2.3	89.3	0.24	14600	406	<0.20	10.3	2.1	2700	<0.50	<0.50	5470	<0.10	0.14	23.2																		
		Potentially Dissolved	4540	<1.0	5.0	97.4	0.59	4.5	132000	10.7	6.2	57.3	17300	77.1	15500	836	<0.20	6.0	9.9	2520	1.7	0.14J	5790	0.18J	12.6	367																		
GW-5	8/29/13	Total	33500	3.5	334	82.0	3.1	206	1120000	37.3	64.8	7090	264000	21600	60000	23000	0.87	21.8	96.2	8470	8.7	55.6	9120	1.8	55.2	79300	243	<20.0	243	1.3	<0.0050	3040000	0.19	1280	1.0	245000	1090	4.7	1910	0.71	3120			
		Dissolved	<4.0	<0.50	40.2	12.1	<0.20	<0.080	443000	<0.50	4.2	1.1	2340	2.7	42100	2740	<0.20	11.1	9.0	4780	<0.50	<0.50	8820	<0.10	<0.10	3090																		
		Potentially Dissolved	21000	0.66J	240	18.7	2.9	194	446000	27.4	39.1	1280	110000	4520	46600	11000	<0.20	2.7	62.5	5780	7.1	0.011J	8400	1.2	55.5	77000																		
GW-6	8/22/13	Total	46400	3.5	665	182	9.9	133	447000	41.0	42.5	1610	241000	13000	81800	23200	1.0	14.6	66.4	19600	13.8	18.5	6710	1.3	91.4	35000	235	<20.0	235	1.4	<0.0050	1450000	0.16	1240	0.99	148000	1270	<0.050	1770	2.9	3510			
		Dissolved	61.5	<0.50	88.8	27.2	0.64	0.069	408000	<0.50	4.2	2.7	64500	1.2	58800	12300	<0.20	11.8	6.5	13700	<0.50	<0.50	6440	<0.10	0.11	6780																		
		Potentially Dissolved	23700	1.7J	492	31.2	8.9	102	390000	15.1	22.6	864	181000	8770	63600	21700	<0.20	4.2J	34.6	14900	4.6J	<2.5	6320	2.1J	49.7	28900																		
GW-7	8/22/13	Total	10100	0.67	14.4	47.9	1.1	5.2	286000	16.3	4.5	156	25900	487	35200	202	<0.20	4.4	12.9	4200	8.0	1.7	9840	0.38	12.9	1030	317	<20.0	317	1.7	<0.0050	859000	0.55	908	0.71	36100	681	<0.050	1130	0.88	316			
		Dissolved	79.5	<0.50	<0.50	14.9	<0.20	2.9	315000	<0.50	0.68	5.9	<50.0	5.9	30500	19.9	<0.20	1.2	5.5	2800	1.7	<0.50	8770	<0.10	<0.10	180																		
		Potentially Dissolved	4250	0.20J	2.6	18.0	0.81	3.7	278000	4.3	2.2	124	7750	394	28800	55.1	<0.20	0.58J	6.2	3050	5.5	0.18J	8590	0.47J	1.7	452																		
EB-1	8/22/13	Total	1080	<0.50	16.0	33.5	0.30	2.7	358000	2.4	4.2	56.8	9730	340	26700	2380	<0.20	12.5	4.6	4280	<0.50	1.5	8400	<0.10	1.7	1570	214	<20.0	214	1.5	<0.0050	1000000	0.14	1060	0.83	21900	1090	<0.050	1460	1.6	84.0			
		Dissolved	11.0	<0.50	8.9	12.0	<0.20	<0.080	394000	<0.50	3.4	1.5	2670	1.8	28900	2390	<0.20	11.9	7.1	4050	<0.50	<0.50	7900	<0.10	<0.10	934																		
		Potentially Dissolved	398	0.27J	13.4	14.4	0.18J	1.2	357000	1.4	3.1	20.5	4860	269	27000	2390	<0.20	10.5	3.5	4160	<1.0	<0.50	8120	0.31J	0.52J	1250																		
EB-2	8/22/13	Total	18700	<0.50	332	63.8	7.4	4.5	345000	1.2	58.1	75.0	662000	625	148000	33400	<0.20	4.9	83.2	20600	5.1	1.7	7350	0.12	1.3	59700	114	<20.0	114	4.0	<0.0050	1470000	<0.10	2330	1.9	39100	8900	<0.050	1990	<0.50	130			
		Dissolved	17800	<0.50	219	10.9	7.0	1.0	383000	<0.50	47.0	2.1	66000	1.9	157000	34500	<0.20	7.8	68.6	20000	0.38	<0.50	7390	<0.10	<0.10	37000																		
		Potentially Dissolved	18200	0.93J	301	11.8	7.2	3.3J	320000	<10.0	54.7	44.6	650000	597	146000	33400	<0.20	4.4J	80.9	19100	<10.0	<5.0	7320	3.0J	<5.0	56400																		
MW-1 SHALLOW	8/27/13	Total	17300	0.68	17.4	210	1.8	2.3	260000	17.2	13.4	90.6	24900	233	29200	1670	<0.20	9.1	17.5	9620	12.4	0.2	16200	0.40	26.2	382	141	<20.0	141	1.2	<0.0050	770000	<0.10	794	0.62	73400	611	<0.050	1030	0.79	848			
		Dissolved	48.7	<0.50	<0.50	26.1	<0.20	0.31	219000	<0.50	<0.50	1.3	67.5	0.59	20100	12.4	<0.20	10.6	1.7	7250	9.1	<0.50	17100	<0.10	0.13	17.2																		
		Potentially Dissolved	5790	<1.0	2.9	56.5	0.94	1.7	213000	8.0	8.1	48.5	9470	165	19000	1260	<0.20	1.9	9.3	6820	10.3	<1.0	15900	0.20J	9.3	235																		
MW-1 DEEP	8/27/13	Total	4720	0.77	7.7	220	0.89	1.4	269000	8.0	8.0	150	12900	282	22200	1340	<0.20	17.4	6.8	7594	17.1	0.94	1680	0.25	7.4	1980	151	<20.0	151	1.1	<0.0050	753000	<0.10	942	0.74	32800	615	<0.050	1030	<0.50	214			
		Dissolved	31.7	<0.50	<0.50	26.6	<0.20	2.2	242000	0.52	<0.50	3.0	86.9	1.8	20200	37.4	<0.20	12.4	1.9	6600	14.7																							

TABLE 4C - Quality Control Samples Analytical Sampling Results Summary, August 2013

		Metals (µg/L)																						Non-Metals (mg/L, unless otherwise indicated)																	
Field Sample ID	Date Collected	Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Carbonate (CaCO3)	Alkalinity, Total as CaCO3	Chloride	Cyanide	Hardness (µg/L as CaCO3)	Nitrogen, NO2 plus NO3	Salinity, as dissolved solids	Salinity, as sea water (PSU)	Silica (µg/L)	Sulfate	Sulfide	TDS	TOC	TSS
DR-8 DUPLICATE OF DR-4	8/27/13	Total	310	<0.50	0.72	24.2	0.34	16.8	259000	<0.50	2.6	61.0	2750	6.0	21000	1760	<0.20	16.0	4.4	3310	<0.50	<0.50	14300	<0.10	<0.10	3040	143	<20.0	143	<1.0	<0.0050	734000	0.19	815	0.63	16900	580	<0.050	1040	<0.50	7.0
		Dissolved	15.6	<0.50	<0.50	21.3	<0.20	14.5	248000	<0.50	2.7	4.3	<50.0	0.15	20400	1690	<0.20	14.8	7.8	3180	<0.50	<0.50	14700	<0.10	<0.10	2530															
		Potentially Dissolved	240	0.10J	0.25J	21.4	0.22J	16.0	234000	0.77J	2.4	58.8	2600	6.0	18600	1710	<0.20	15.9	4.0	3060	<1.0	0.047J	14300	0.12J	<1.0	2630															
DR-9 DUPLICATE OF DR-3	8/27/13	Total	861	<0.50	1.7	22.2	0.93	21.0	262000	0.77	2.9	181	8450	15.6	20900	1880	<0.20	18.0	4.6	3390	<0.50	<0.50	14400	<0.10	0.20	4080	149	<20.0	149	<1.0	<0.0050	739000	<0.10	799	0.62	19200	583	<0.050	1050	<0.50	13.0
		Dissolved	24.4	<0.50	<0.50	20.2	0.31	19.0	253000	0.56	2.9	9.4	219	0.19	20600	1810	<0.20	15.4	9.1	3340	<0.50	<0.50	15300	<0.10	<0.10	3590															
		Potentially Dissolved	687	0.11J	0.90J	19.2	0.69	19.5	224000	1.5	2.5	158	7560	14.6	17400	1780	<0.20	16.8	4.2	2960	<1.0	0.026J	13600	0.067J	<1.0	3420															
DR-10 DUPLICATE OF MW-101	8/29/13	Total	8670	<0.50	11.0	164	1.4	7.5	326000	16.0	7.0	88.9	33400	936	47200	1280	<0.20	6.5	13.9	5540	5.6	3.6	10200	0.49	14.7	1270	379	<20.0	379	1.5	<0.0050	1010000	0.18	968	0.76	43600	734	<0.050	1240	0.70	471
		Dissolved	54.0	<0.50	0.56	20.3	<0.20	0.60	342000	<0.50	2.3	1.3	1710	3.2	37200	651	<0.20	1.6	8.0	4140	2.9	<0.50	9630	<0.10	<0.10	336															
		Potentially Dissolved	2780	0.12J	2.2	35.0	0.61	6.6	286000	7.6	4.6	58.0	13200	792	31800	904	<0.20	0.32J	7.3	4060	3.3	0.20J	9190	0.30J	5.0	814															
DR-11 DUPLICATE OF AT-2	8/29/13	Total	35000	0.97	39.2	309	3.5	5.7	120000	50.0	35.9	240	102000	271	37700	4080	<0.20	15.4	54.6	6610	5.6	0.78	7930	0.57	54.0	1450	63.7	<20.0	63.7	1.3	<0.0050	455000	CNO*	384	0.29	117000	253	<0.050	407		1330
		Dissolved	11.2	<0.50	<0.50	65.5	<0.20	<0.080	100000	0.73	0.58	1.1	<50.0	<0.10	7220	554	<0.20	6.1	4.8	3030	<0.50	<0.50	8060	<0.10	<0.10	<5.0															
		Potentially Dissolved	7150	0.18J	4.6	211	1.8	5.1	97700	12.8	26.1	142	34400	267	10700	3780	<0.20	0.92J	26.6	3070	4.3	0.024J	6970	0.15J	15.3	927															
DR-12 DUPLICATE OF DR-G	8/20/13	Total	6110	<0.50	2.1	128	0.28	0.51	63700	7.1	1.7	5.6	3640	3.0	9160	95.8	<0.20	2.8	4.6	3430	0.98	<0.50	3890	0.21	20.3	85.1	153	<20.0	153	1.6	<0.0050	197000	<0.10	232	0.17	43100	75.6	<0.050	224	1.3	110
		Dissolved	35.5	<0.50	0.50	77.5	<0.20	0.18	59900	<0.50	<0.50	1.6	<50.0	<0.10	7980	39.1	<0.20	1.7	2.3	1150	0.62	<0.50	3840	<0.10	0.26	21.1															
		Potentially Dissolved	174	0.12J	0.49J	82.8	0.29J	0.41J	58000	0.69J	0.90J	1.6	435	1.7	7480	80.8	<0.20	1.1	1.8	1110	0.27J	0.038J	3700	0.029J	0.46J	61.1															
FB- LAB	8/27/13	Total	<4.0	<0.50	<0.50	<0.30	<0.20	<0.080	75.5	<0.50	<0.50	<0.50	<0.10	10.8	1.1	<0.20	<0.50	<0.50	<20.0	<0.50	<0.50	439	<0.10	<0.10	<5.0	<20.0	<20.0	<20.0	<1.0	<0.0050	233	<0.10	<6.4	<0.014	78.4	<1.0353.2	<0.050	29.0	<0.50	<5.0	
		Dissolved	16.4	<0.50	<0.50	<0.30	<0.20	<0.080	45.9	0.58	<0.50	0.61	<50.0	<0.10	6.2	0.52	<0.20	<0.50	0.85	28.3	<0.50	<0.50	442	<0.10	<0.10	<5.0															
		Potentially Dissolved	<50.0	<1.0	<1.0	0.30J	<0.50	<0.50	136	0.54J	<1.0	0.31J	11.0J	0.077J	6.5J	0.65J	<0.20	<1.0	0.21J	<500	<1.0	<0.50	473J	<1.0	<1.0	5.9J															
FB- FIELD	8/28/13	Total	<4.0	<0.50	<0.50	<0.30	<0.20	<0.080	38.6	<0.50	<0.50	<0.50	<0.10	8.7	0.56	<0.20	<0.50	<0.50	<20.0	<0.50	<0.50	431	<0.10	<0.10	<5.0	<20.0	<20.0	<20.0	<20.0	<1.0	<0.0050	132	0.13	7.1	0.014	84.7	<1.0	<0.050	12.0	<0.50	<5.0
		Dissolved	<4.0	<0.50	<0.50	<0.30	<0.20	<0.080	62.0	<0.50	<0.50	<0.50	<0.10	11.7	<0.50	<0.20	<0.50	<0.50	<43.0	<0.50	<0.50	443	<0.10	<0.10	<5.0																
		Potentially Dissolved	<50.0	<1.0	<1.0	0.36J	<0.50	<0.50	41.8J	0.39J	<1.0	0.23J	4.6J	0.039J	<50.0	0.53J	<0.20	<1.0	0.25J	<500	<1.0	<0.50	449J	<1.0	<1.0	1.3J															

\* The container for the 5310C TOC & 353.2 Nitrate+Nitrite had a broken lid upon arrival at the lab and spilled into the cooler; therefore, it was unable to be analyzed for the TOC & Nitrate+Nitrite on this sample. The end of the month had already passed so sample was not able to be recollected.



TABLE 4D - Dolores River Composite Sampling Analytical Sampling Results Summary, August 2013

		Metals (µg/L)																						Non-Metals (mg/L, unless otherwise indicated)																	
Field Sample ID	Date Collected	Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Carbonate (CaCO3)	Alkalinity, Total as CaCO3	Chloride	Cyanide	Hardness (µg/L as CaCO3)	Nitrogen, NO2 plus NO3	Salinity, as dissolved solids	Salinity, as sea water (PSU)	Silica (µg/L)	Sulfate	Sulfide	TDS	TOC	TSS
DR-1 COMP	8/20/13	Total	336	<0.50	<0.50	66.4	<0.20	<0.080	38800	0.50	<0.50	0.90	309	0.33	5840	16.0	<0.20	1.0	<0.50	809	0.55	<0.50	2460	<0.10	1.3	<5.0	121	<20.0	121	1.1	<0.0050	121000	0.19	152	0.12	7770	45.3	<0.050	144	1.9	18.0
		Dissolved	8.5	<0.50	<0.50	61.9	<0.20	<0.080	37800	<0.50	<0.50	1.4	<50.0	<0.10	5620	10.1	<0.20	1.0	2.7	676	0.51	<0.50	2500	<0.10	0.12	<5.0															
		Potentially Dissolved	34.2J	0.079J	0.064J	59.1	0.19J	<0.50	36500	0.52J	<1.0	0.64J	78.7	0.25J	5280	14.3	<0.20	0.98J	0.47J	676	<1.0	0.037J	2500	<1.0	<1.0	5.1J															
DR-2 COMP	8/20/13	Total	560	<0.50	<0.50	66.0	<0.20	<0.080	47600	0.78	<0.50	0.84	414	0.38	6810	72.3	<0.20	1.2	<0.50	1120	0.53	<0.50	3140	<0.10	1.9	5.0	134	<20.0	134	1.1	0.0055	147000	<0.10	193	0.14	9610	60.5	<0.050	193	1.4	15.0
		Dissolved	11.2	<0.50	<0.50	61.8	<0.20	<0.080	46400	<0.50	<0.50	1.7	<50.0	<0.10	6890	67.6	<0.20	1.1	2.5	955	0.57	<0.50	3280	<0.10	0.15	7.1															
		Potentially Dissolved	39.4J	0.12J	0.10J	58.2	0.19J	0.056J	44200	0.48J	0.094J	0.62J	110	0.25J	6310	69.6	<0.20	1.0	0.48J	910	0.14J	0.044J	3190	<1.0	<1.0	4.1J															
DR-7 COMP	8/7/13	Total	699	<0.50	1.1	63.6	<0.20	0.22	51800	0.85	0.54	1.7	997	1.1	7210	112	<0.20	1.5	1.4	1190	0.55	<0.50	3360	<0.10	1.6	40.4	128	<20.0	128	1.1	<0.0050	159000	0.15	223	0.17	9590	67.0	<0.050	199	1.3	36.0
		Dissolved	8.0	<0.50	0.52	55.0	<0.20	0.17	44900	<0.50	<0.50	1.4	<50.0	<0.10	6800	94.1	<0.20	1.4	3.9	968	<0.50	<0.50	3330	<0.10	<0.10	32.2															
		Potentially Dissolved	76.4	0.044J	0.32J	54.9	<0.50	0.35J	48600	0.32J	0.17J	1.1	259	0.98J	6500	100	<0.20	0.97J	0.70J	958	<1.0	0.16J	3570	0.22J	0.34J	54.7															
DR-4-SW COMP	8/20/13	Total	1300	<0.50	0.88	73.6	<0.20	0.52	59000	1.7	0.56	1.8	1020	1.0	8110	131	<0.20	1.7	<0.50	1590	0.60	<0.50	3750	<0.10	4.2	78.6	141	<20.0	141	1.5	<0.0050	181000	<0.10	232	0.17	15200	82.3	<0.050	226	1.5	35.0
		Dissolved	8.4	<0.50	0.59	64.2	<0.20	0.37	57700	<0.50	<0.50	1.6	<50.0	<0.10	7860	119	<0.20	1.4	2.2	1150	0.52	<0.50	3870	<0.10	0.11	62.4															
		Potentially Dissolved	70.7	0.086J	0.38J	59.8	0.22J	0.44J	53500	0.34J	0.30J	1.0	227	0.70J	7110	123	<0.20	1.2	0.86J	1090	<1.0	0.037J	3670	<1.0	<1.0	64.3															

**Table 5A - Relative Percent Difference (RPD) of Lab Analysis Between DR-4 and DR-8**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	DR-4 (µg/L)	DR-8 (µg/L)	RPD (%)	DR-4 (µg/L)	DR-8 (µg/L)	RPD (%)	DR-4 (µg/L)	DR-8 (µg/L)	RPD (%)
Aluminum	337	310	-8.35	12.2	15.6	24.46	249	240	-3.68
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	0.076J	0.10J	-
Arsenic	0.71	0.72	1.40	<0.50	<0.50	-	0.36J	0.25J	-
Barium	24.4	24.2	-0.82	21.5	21.3	-0.93	21.8	21.4	-1.85
Beryllium	0.30	0.34	12.50	<0.20	<0.20	-	0.25J	0.22J	-
Cadmium	16.5	16.8	1.80	14.4	14.5	0.69	16.0	16.0	0.00
Calcium	258000	259000	0.39	250000	248000	-0.80	237000	234000	-1.27
Chromium	<0.50	<0.50	-	<0.50	<0.50	-	0.65J	0.77J	-
Cobalt	2.7	2.6	-3.77	2.7	2.7	0.00	2.4	2.4	0.00
Copper	61.3	61.0	-0.49	3.4	4.3	23.38	55.2	58.8	6.32
Iron	2810	2750	-2.16	<50.0	<50.0	-	2610	2600	-0.38
Lead	6.4	6.0	-6.45	<0.10	0.15	-	6.0	6.0	0.00
Magnesium	21100	21000	-0.48	20700	20400	-1.46	19300	18600	-3.69
Manganese	1760	1760	0.00	1700	1690	-0.59	1710	1710	0.00
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	16.2	16.0	-1.24	15.0	14.8	-1.34	15.9	15.9	0.00
Nickel	4.2	4.4	4.65	8.9	7.8	-13.17	3.9	4.0	2.53
Potassium	3320	3310	-0.30	3200	3180	-0.63	3090	3060	-0.98
Selenium	<0.50	<0.50	-	<0.50	<0.50	-	<1.0	<1.0	-
Silver	<0.50	<0.50	-	<0.50	<0.50	-	0.020J	0.047J	-
Sodium	14400	14300	-0.70	14900	14700	-1.35	14300	14300	0.00
Thallium	<0.10	<0.10	-	<0.10	<0.10	-	0.070J	0.12J	-
Vanadium	0.12	<0.10	-	<0.10	<0.10	-	<1.0	<1.0	-
Zinc	2970	3040	2.33	2520	2530	0.40	2660	2630	-1.13
Alkalinity, Bicarbonate (CaCO <sub>3</sub> , mg/L)	145	143	-1.39	-	-	-	-	-	-
Alkalinity, Carbonate (CaCO <sub>3</sub> , mg/L)	<20.0	<20.0	-	-	-	-	-	-	-
Alkalinity, Total as CaCO <sub>3</sub> (mg/L)	145	143	-1.39	-	-	-	-	-	-
Chloride (mg/L)	<1.0	<1.0	-	-	-	-	-	-	-
Cyanide	<0.0050	<0.0050	-	-	-	-	-	-	-
Hardness	730000	734000	0.55	-	-	-	-	-	-
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> (mg/L)	<0.10	0.19	-	-	-	-	-	-	-
Salinity, as dissolved solids (mg/L)	758	815	7.25	-	-	-	-	-	-
Salinity, as sea water (PSU)	0.59	0.63	6.56	-	-	-	-	-	-
Silica	16900	16900	0.00	-	-	-	-	-	-
Sulfate (mg/L)	565	580	2.62	-	-	-	-	-	-
Sulfide (mg/L)	<0.050	<0.050	-	-	-	-	-	-	-
TDS (mg/L)	1050	1040	-0.96	-	-	-	-	-	-
TOC (mg/L)	<0.50	<0.50	-	-	-	-	-	-	-
TSS (mg/L)	8.0	7.0	-13.33	-	-	-	-	-	-

**Table 5B - Relative Percent Difference (RPD) of Lab Analysis Between DR-3 and DR-9**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	DR-3 (µg/L)	DR-9 (µg/L)	RPD (%)	DR-3 (µg/L)	DR-9 (µg/L)	RPD (%)	DR-3 (µg/L)	DR-9 (µg/L)	RPD (%)
Aluminum	822	861	4.63	20.6	24.4	16.89	709	687	-3.15
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	0.19J	0.11J	-
Arsenic	1.5	1.7	12.50	<0.50	<0.50	-	1.1	0.90J	-
Barium	21.9	22.2	1.36	19.9	20.2	1.50	20.3	19.2	-5.57
Beryllium	0.85	0.93	8.99	0.31	0.31	0.00	0.74	0.69	-6.99
Cadmium	21.1	21.0	-0.48	18.9	19.0	0.53	20.6	19.5	-5.49
Calcium	263000	262000	-0.38	256000	253000	-1.18	238000	224000	-6.06
Chromium	<0.50	0.77	-	<0.50	0.56	-	1.3	1.5	14.29
Cobalt	2.8	2.9	3.51	2.7	2.9	7.14	2.6	2.5	-3.92
Copper	179	181	1.11	8.1	9.4	14.86	163	158	-3.12
Iron	8380	8450	0.83	315	219	-35.96	7820	7560	-3.38
Lead	15.6	15.6	0.00	<0.10	0.19	-	14.8	14.6	-1.36
Magnesium	20500	20900	1.93	20400	20600	0.98	19000	17400	-8.79
Manganese	1910	1880	-1.58	1820	1810	-0.55	1850	1780	-3.86
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	17.4	18.0	3.39	14.9	15.4	3.30	18.0	16.8	-6.90
Nickel	4.2	4.6	9.09	6.0	9.1	41.06	4.3	4.2	-2.35
Potassium	3330	3390	1.79	3280	3340	1.81	3140	2960	-5.90
Selenium	<0.50	<0.50	-	<0.50	<0.50	-	0.19J	<1.0	-
Silver	<0.50	<0.50	-	<0.50	<0.50	-	0.044J	0.026J	-
Sodium	14300	14400	0.70	14900	15300	2.65	14400	13600	-5.71
Thallium	<0.10	<0.10	-	<0.10	<0.10	-	0.13J	0.067J	-
Vanadium	0.18	0.20	10.53	<0.10	<0.10	-	<1.0	<1.0	-
Zinc	4080	4080	0.00	3640	3590	-1.38	3620	3420	-5.68
Alkalinity, Bicarbonate (CaCO3, mg/L)	144	149	3.41	-	-	-	-	-	-
Alkalinity, Carbonate (CaCO3, mg/L)	<20.0	<20.0	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3 (mg/L)	144	149	3.41	-	-	-	-	-	-
Chloride (mg/L)	1.4	<1.0	-	-	-	-	-	-	-
Cyanide	<0.0050	<0.0050	-	-	-	-	-	-	-
Hardness	741000	739000	-0.27	-	-	-	-	-	-
Nitrogen, NO2 plus NO3 (mg/L)	0.13	<0.10	-	-	-	-	-	-	-
Salinity, as dissolved solids (mg/L)	772	799	3.44	-	-	-	-	-	-
Salinity, as sea water (PSU)	0.60	0.62	3.28	-	-	-	-	-	-
Silica	19500	19200	-1.55	-	-	-	-	-	-
Sulfate (mg/L)	604	583	-3.54	-	-	-	-	-	-
Sulfide (mg/L)	<0.050	<0.050	-	-	-	-	-	-	-
TDS (mg/L)	1110	1050	-5.56	-	-	-	-	-	-
TOC (mg/L)	<0.50	<0.50	-	-	-	-	-	-	-
TSS (mg/L)	22.0	13.0	-51.43	-	-	-	-	-	-

**Table 5C - Relative Percent Difference (RPD) of Lab Analysis Between MW-101 and DR-10**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	MW-101 (µg/L)	DR-10 (µg/L)	RPD (%)	MW-101 (µg/L)	DR-10 (µg/L)	RPD (%)	MW-101 (µg/L)	DR-10 (µg/L)	RPD (%)
Aluminum	3200	8670	92.17	60.4	54.0	-11.19	3440	2780	-21.22
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	0.14J	0.12J	-
Arsenic	4.2	11.0	89.47	<0.50	0.56	-	2.9	2.2	-27.45
Barium	39.0	164	123.15	19.9	20.3	1.99	38.0	35.0	-8.22
Beryllium	0.95	1.4	38.30	<0.20	<0.20	-	0.81	0.61	-28.17
Cadmium	7.6	7.5	-1.32	0.41	0.60	37.62	7.6	6.6	-14.08
Calcium	330000	326000	-1.22	347000	342000	-1.45	293000	286000	-2.42
Chromium	7.5	16.0	72.34	0.78	<0.50	-	10.9	7.6	-35.68
Cobalt	5.9	7.0	17.05	2.3	2.3	0.00	5.6	4.6	-19.61
Copper	74.5	89.9	18.73	0.52	1.3	85.71	74.2	58.0	-24.51
Iron	14600	33400	78.33	1920	1710	-11.57	16300	13200	-21.02
Lead	835	939	11.72	2.6	3.2	20.69	951	792	-18.24
Magnesium	37300	47200	23.43	37500	37200	-0.80	33600	31800	-5.50
Manganese	965	1280	28.06	677	651	-3.92	1030	904	-13.03
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	<0.50	6.5	-	1.7	1.6	-6.06	0.39J	0.32J	-
Nickel	10.6	13.9	26.94	4.3	8.0	60.16	9.3	7.3	-24.10
Potassium	4540	5540	19.84	4050	4140	2.20	4310	4060	-5.97
Selenium	3.5	5.6	46.15	2.9	2.9	0.00	3.7	3.3	-11.43
Silver	<0.50	3.6	-	<0.50	<0.50	-	0.23J	0.20J	-
Sodium	10400	10200	-1.94	9630	9830	2.06	9340	9190	-1.62
Thallium	0.34	0.49	36.14	<0.10	<0.10	-	0.36J	0.30J	-
Vanadium	6.7	14.7	74.77	<0.10	<0.10	-	5.1	5.0	-1.98
Zinc	1100	1270	14.35	342	336	-1.77	979	814	-18.40
Alkalinity, Bicarbonate (CaCO <sub>3</sub> , mg/L)	382	379	-0.79	-	-	-	-	-	-
Alkalinity, Carbonate (CaCO <sub>3</sub> , mg/L)	<20.0	<20.0	-	-	-	-	-	-	-
Alkalinity, Total as CaCO <sub>3</sub> (mg/L)	382	379	-0.79	-	-	-	-	-	-
Chloride (mg/L)	1.6	1.5	-6.45	-	-	-	-	-	-
Cyanide	<0.0050	<0.0050	-	-	-	-	-	-	-
Hardness	978000	1010000	3.22	-	-	-	-	-	-
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> (mg/L)	0.37	0.18	-69.09	-	-	-	-	-	-
Salinity, as dissolved solids (mg/L)	1010	968	-4.25	-	-	-	-	-	-
Salinity, as sea water (PSU)	0.79	0.76	-3.87	-	-	-	-	-	-
Silica	20300	43600	72.93	-	-	-	-	-	-
Sulfate (mg/L)	700	734	4.74	-	-	-	-	-	-
Sulfide (mg/L)	<0.050	<0.050	-	-	-	-	-	-	-
TDS (mg/L)	1260	1240	-1.60	-	-	-	-	-	-
TOC (mg/L)	0.75	0.70	-6.90	-	-	-	-	-	-
TSS (mg/L)	508	471	-7.56	-	-	-	-	-	-

**Table 5D - Relative Percent Difference (RPD) of Lab Analysis Between AT-2 and DR-11**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	AT-2 (µg/L)	DR-11 (µg/L)	RPD (%)	AT-2 (µg/L)	DR-11 (µg/L)	RPD (%)	AT-2 (µg/L)	DR-11 (µg/L)	RPD (%)
Aluminum	19900	35000	55.01	15.9	11.2	-34.69	8600	7150	-18.41
Antimony	0.78	0.97	21.71	<0.50	<0.50	-	0.18J	0.18J	-
Arsenic	23.7	39.2	49.28	<0.50	<0.50	-	4.8	4.6	-4.26
Barium	258	309	17.99	62.5	65.5	4.69	223	211	-5.53
Beryllium	2.9	3.5	18.75	<0.20	<0.20	-	2.1	1.8	-15.38
Cadmium	5.5	5.7	3.57	<0.080	<0.080	-	5.7	5.1	-11.11
Calcium	112000	120000	6.90	96500	100000	3.56	99900	97700	-2.23
Chromium	27.1	50.0	59.40	<0.50	0.73	-	15.4	12.8	-18.44
Cobalt	30.9	35.9	14.97	<0.50	0.58	-	28.6	26.1	-9.14
Copper	178	240	29.67	1.2	1.1	-8.70	154	142	-8.11
Iron	61100	102000	50.15	<50.0	<50.0	-	39800	34400	-14.56
Lead	234	271	14.65	<0.10	<0.10	-	299	267	-11.31
Magnesium	24000	37700	44.41	6980	7220	3.38	11400	10700	-6.33
Manganese	3530	4080	14.45	489	554	12.46	4140	3780	-9.09
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	8.0	15.4	63.25	5.5	6.1	10.34	0.76J	0.92J	-
Nickel	37.7	54.6	36.62	2.8	4.8	52.63	29.9	26.6	-11.68
Potassium	5300	6610	22.00	2960	3030	2.34	3200	3070	-4.15
Selenium	5.1	5.6	9.35	<0.50	<0.50	-	5.3	4.3	-20.83
Silver	<0.50	0.78	-	<0.50	<0.50	-	0.035J	0.024J	-
Sodium	7390	7930	7.05	7880	8060	2.26	7090	6970	-1.71
Thallium	0.36	0.57	45.16	<0.10	<0.10	-	0.17J	0.15J	-
Vanadium	32.6	54.0	49.42	<0.10	<0.10	-	16.6	15.3	-8.15
Zinc	979	1450	38.78	<5.0	<5.0	-	994	927	-6.98
Alkalinity, Bicarbonate (CaCO3, mg/L)	64.8	63.7	-1.71	-	-	-	-	-	-
Alkalinity, Carbonate (CaCO3, mg/L)	<20.0	<20.0	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3 (mg/L)	64.8	63.7	-1.71	-	-	-	-	-	-
Chloride (mg/L)	1.2	1.3	8.00	-	-	-	-	-	-
Cyanide	<0.0050	<0.0050	-	-	-	-	-	-	-
Hardness	379000	455000	18.23	-	-	-	-	-	-
Nitrogen, NO2 plus NO3 (mg/L)	0.12		-200.00	-	-	-	-	-	-
Salinity, as dissolved solids (mg/L)	364	384	5.35	-	-	-	-	-	-
Salinity, as sea water (PSU)	0.28	0.29	3.51	-	-	-	-	-	-
Silica	61200	117000	62.63	-	-	-	-	-	-
Sulfate (mg/L)	240	253	5.27	-	-	-	-	-	-
Sulfide (mg/L)	<0.050	<0.050	-	-	-	-	-	-	-
TDS (mg/L)	393	407	3.50	-	-	-	-	-	-
TOC (mg/L)	1.0		-200.00	-	-	-	-	-	-
TSS (mg/L)	1490	1330	-11.35	-	-	-	-	-	-

**Table 5E - Relative Percent Difference (RPD) of Lab Analysis Between DR-G and DR-12**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	DR-G (µg/L)	DR-12 (µg/L)	RPD (%)	DR-G (µg/L)	DR-12 (µg/L)	RPD (%)	DR-G (µg/L)	DR-12 (µg/L)	RPD (%)
Aluminum	6410	6110	-4.79	7.1	35.5	133.33	182	174	-4.49
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	0.12J	0.12J	-
Arsenic	2.3	2.1	-9.09	0.53	0.50	-5.83	0.49J	0.49J	-
Barium	131	128	-2.32	76.0	77.5	1.95	81.4	82.8	1.71
Beryllium	0.30	0.28	-6.90	<0.20	<0.20	-	0.27J	0.29J	-
Cadmium	0.58	0.51	-12.84	0.16	0.18	11.76	0.49J	0.41J	-
Calcium	66000	63700	-3.55	57800	59900	3.57	56600	58000	2.44
Chromium	7.9	7.1	-10.67	<0.50	<0.50	-	0.42J	0.69J	-
Cobalt	1.9	1.7	-11.11	<0.50	<0.50	-	0.95J	0.90J	-
Copper	5.8	5.6	-3.51	1.6	1.6	0.00	2.5	1.6	-43.90
Iron	4110	3640	-12.13	<50.0	<50.0	-	489	435	-11.69
Lead	3.4	3.0	-12.50	<0.10	<0.10	-	1.9	1.7	-11.11
Magnesium	9400	9160	-2.59	7820	7980	2.03	7340	7480	1.89
Manganese	106	95.8	-10.11	36.5	39.1	6.88	86.8	80.8	-7.16
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	3.1	2.8	-10.17	1.6	1.7	6.06	1.1	1.1	0.00
Nickel	5.5	4.6	-17.82	2.4	2.3	-4.26	2.2	1.8	-20.00
Potassium	3550	3430	-3.44	1120	1150	2.64	1060	1110	4.61
Selenium	0.97	0.98	1.03	0.63	0.62	-1.60	0.24J	0.27J	-
Silver	<0.50	<0.50	-	<0.50	<0.50	-	0.039J	0.038J	-
Sodium	3940	3890	-1.28	3760	3840	2.11	3490	3700	5.84
Thallium	0.23	0.21	-9.09	<0.10	<0.10	-	0.033J	0.029J	-
Vanadium	22.7	20.3	-11.16	0.17	0.26	41.86	0.53J	0.46J	-
Zinc	93.0	85.1	-8.87	19.4	21.1		61.8	61.1	-1.14
Alkalinity, Bicarbonate (CaCO <sub>3</sub> , mg/L)	155	153	-1.30	-	-	-	-	-	-
Alkalinity, Carbonate (CaCO <sub>3</sub> , mg/L)	<20.0	<20.0	-	-	-	-	-	-	-
Alkalinity, Total as CaCO <sub>3</sub> (mg/L)	155	153	-1.30	-	-	-	-	-	-
Chloride (mg/L)	1.6	1.6	0.00	-	-	-	-	-	-
Cyanide	<0.0050	<0.0050	-	-	-	-	-	-	-
Hardness	203000	197000	-3.00	-	-	-	-	-	-
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> (mg/L)	0.18	<0.10	-	-	-	-	-	-	-
Salinity, as dissolved solids (mg/L)	242	232	-4.22	-	-	-	-	-	-
Salinity, as sea water (PSU)	0.18	0.17	-5.71	-	-	-	-	-	-
Silica	43800	43100	-1.61	-	-	-	-	-	-
Sulfate (mg/L)	76.5	75.6	-1.18	-	-	-	-	-	-
Sulfide (mg/L)	<0.050	<0.050	-	-	-	-	-	-	-
TDS (mg/L)	235	224	-4.79	-	-	-	-	-	-
TOC (mg/L)	1.3	1.3	0.00	-	-	-	-	-	-
TSS (mg/L)	140	110	-24.00	-	-	-	-	-	-